

June 1, 2006

Attorney Jennifer Boyd Herlihy  
Adler, Cohen, Harvey, Wakeman & Guekguezian, LLP  
75 Federal Street  
Boston, MA 02110

Re: Jue Zhang vs. Shraga N. Goldberg, M.D.  
Civil Action Number: 04-12735PBS

Dear Attorney Herlihy:

I am board certified in Internal Medicine, Pulmonary and Critical Care Medicine, and Allergy and Immunology. I am licensed in Massachusetts. My CV is attached hereto. Please allow this correspondence to discuss my opinions of the medical care and treatment of Jue Zhang in the above-captioned matter.

**Opinion:**

I have reviewed all the medical records of the plaintiff that have been gathered to date and the films of the abdominal CT scan taken at Beth Israel on November 7, 2001. The abdominal CT scan was requested on this 28-year-old patient due to complaints of "right upper quadrant pain" with no other information provided with respect to any other areas of pain or any infectious disease process. This testing was appropriate for that complaint. It is my opinion that the findings on the CT do not correlate with the complaint of the plaintiff of "right upper quadrant pain", and they are not likely to be related.

Further, it is my opinion that even if the soft tissue thickening described had been included in the reading, a biopsy of the area would not have been done. The finding was, in itself, non-specific and not diagnostic. Biopsy of the soft tissue thickening would have almost certainly required puncture of the lung in 2 locations, risking a pneumothorax (collapse of the lung), which can be dangerous, as well as risking bleeding and infection. A needle biopsy of the soft tissue thickening would also have been, more likely than not, a low yield procedure, that is, no assurance of a diagnosis of tuberculosis. In the absence of symptoms referable to the area or of suspicion for tuberculosis or other disease at the time, invasive testing of the soft tissue thickening would not have been

undertaken. The risks of the procedure would have substantially exceeded any potential benefit actually derived from that invasive procedure, since the chances of a making a diagnosis were very low. Three people would have needed to agree to such a biopsy: a physician, a radiologist and the patient, each of them confronting the risk and benefit imbalance described. Since the soft tissue thickening was non-specific, age-indeterminate, and relatively small, it is also likely that no other diagnostic testing would have been done that would have led to a definitive diagnosis. In a single cut of the CT an area of lucency is seen in the vertebral body, a non-specific finding. It is not clear that, if it had been reported, that it would have led to further diagnostic testing invasive or non-invasive, given the lack of symptoms at the time. This case is illustrative of the notorious difficulties encountered in the diagnosis of spinal tuberculosis, particularly in the early phases. Typically, diagnosis of spinal tuberculosis is a protracted process, often taking months to years to emerge and then to be diagnosed.

The fragmented nature of the patient's health care likely contributed to the protracted nature of this patient's diagnostic process. She had health care and radiology services at seven different sites in Massachusetts and Connecticut over the years of her illness, including five different facilities prior to and including the diagnosis of spinal tuberculosis. The National Academies of Science's Institute of Medicine has identified fragmented health care as a significant contributor to problems in health care. Recognition of this patient's emerging problem may have been hampered by receiving health care and radiology services at multiple sites. More specifically, even if the CT reading had included "soft tissue thickening," the lack of continuity in her care would have been a major impediment to any diagnostic approach to this finding. At each change in health care site, a physician would have needed to come to the decision as to whether to pursue this non-specific, incidental, asymptomatic finding. While it is doubtful that any diagnostic studies would have been pursued on the basis of the CT findings, if such studies had been ordered, then continuity in care would have been needed.

This case also represents a classic "missed opportunity" for prevention of TB disease. Assuming the plaintiff had a positive PPD test at Northeastern University in 1998 or 1999, as she reported, and/or before she entered this country as a condition of her immigration on December 31, 1997 (not yet verified), more likely than not, she would have also received a chest x-ray (the plaintiff has not provided a copy of that film or a location it was conducted). If the chest x-ray had been normal, isoniazid, an antibiotic, would have been prescribed for the treatment of latent tuberculosis infection. This treatment was developed for the express purpose of preventing the progression from latent infection to tuberculosis disease, and its efficacy has been well established. If the plaintiff took isoniazid for the prescribed period of time in 1997 or 1998/1999, more likely than not, her spinal tuberculosis would have been prevented, and she would not have developed the complications of which she now complains.

The plaintiff's allegations that she could not afford the anti-tuberculosis antibiotics are irrelevant, as, in this Commonwealth, tuberculosis antibiotics, physician visits, and costs for tuberculosis care have been provided free of charge for decades through geographically well-situated clinics paid for by the Commonwealth. In Connecticut the State also pays for tuberculosis-related health care. Employers and schools often send their employees to these clinics for tuberculosis screening for work clearance, allowing

time off from work for such visits.

Lastly, if the plaintiff did receive a vaccination to prevent tuberculosis, usually given in infancy or early childhood, skin test reactivity generally wanes 10-12 years after the vaccination. Belief that the BCG vaccination causes all who are vaccinated to have a positive skin test and to remain so, decades later, is a misconception. Recommendations from the Centers for Disease Control and the American Thoracic Society, in place at the time and currently, direct physicians to disregard the history of BCG vaccination in interpreting the tuberculin skin test. Thus, a tuberculin skin test-positive individual with a normal chest x-ray and physical examination would still have been recommended treatment with isoniazid in the United States, regardless of whether they received BCG or not. The fact that she developed tuberculosis is evidence that she did in fact previously have latent tuberculosis infection, manifested by her positive tuberculin skin test. More likely than not, she acquired tuberculosis infection in China rather than after immigration to the United States, a low TB prevalence country.

**Required Testimonial History:**

With respect to the other information required under the Federal Rules, please be advised that I have testified as an expert at no trial in the last 4 years.

In this case, I have billed \$ 3,150.63 to date and I will be compensated \$500.00/hour plus any travel costs for my testimony at the time of trial.

Respectfully submitted,

Jussi Saukkonen, M.D.

*Curriculum vitae***Jussi Jaakko Saukkonen, Jr., M.D.**

Pulmonary Center  
 Boston University School of Medicine  
 80 East Concord Street, R-304  
 (617)-638-6120  
 617-549-2716  
 email: jsaukkonen@lung.bumc.bu.edu

**Citizenship:** USA**Academic appointments**

1993- Assistant Professor of Medicine  
 Boston University School of Medicine, Boston, MA.  
 1988-1989 Lecturer, Internal Medicine/Surgery/Emergency Services  
 University of Michigan Hospital, Ann Arbor, MI.

**Clinical appointments**

2003-2004 Medical Director, Boston Tuberculosis Clinics  
 Tuberculosis Control Office, Boston, MA  
 1993- Staff Physician, Pulmonary & Critical Care Medicine  
 Boston Medical Center Boston, MA.  
 1993-1997 Staff Physician, Immunodeficiency Clinic  
 Boston Medical Center, Boston, MA.  
 1988-89 Flight and Staff Physician, Emergency Services  
 University of Michigan Hospital, Ann Arbor, MI.

**Education**

2000-2003 Fellow, Allergy and Immunology  
 Boston University School of Medicine  
 1989-1993 Fellow, Pulmonary & Critical Care Medicine  
 Boston University School of Medicine  
 Boston Medical Center Boston VAMC, Boston, MA.  
 1985-1988 Intern & Resident, Internal Medicine  
 University of Michigan Hospitals, Ann Arbor, MI.  
 1981-1985 Doctor of Medicine  
 Jefferson Medical College of Thomas Jefferson University,  
 Philadelphia, PA.  
 1977-1981 Bachelor of Science  
 Yale University, New Haven, CT.  
 1974-1977 High School Diploma  
 Lower Merion Senior High School, Ardmore, PA.

**Board Certification**

1988 Internal Medicine  
 1994,2004 Pulmonary Medicine  
 1995,2005 Critical Care Medicine  
 2006 Allergy and Immunology

**Medical licensure**

Massachusetts #72804

**Honors and Awards**

2004 Emedicine Allergy Featured Chapter Selection "Pulmonary Eosinophilia"  
 2001 American Thoracic Society Travel Award, Annual Meeting  
 2001 Basic Science Award, 2nd Prize, Massachusetts Thoracic Society  
 1994 Local Hero Award, American Lung Association of Norfolk County, MA.

- 1985 Honorable Mentions, Gastroenterology and Kellow Awards,  
Jefferson Medical College, Philadelphia, PA.
- 1985 C.V. Mosby Book Award, Jefferson Medical College.
- Selected Invited Talks**
- 1993 "Non-infectious pulmonary complications of HIV infection."  
Seminar at American Thoracic Society Annual Meeting, San Francisco, CA.
- 1994 "Pulmonary complications of HIV infection."  
Medical Conference, Carney Hospital, Boston, MA.
1995. "Wegener's granulomatosis and other ANCA-associated vasculitides."  
Medical Grand Rounds, Emerson Hospital, Concord, MA.
- 1996 "Preventive therapy against tuberculosis in HIV-infected individuals."  
Conference on Tuberculosis Management, Boston Medical Center, MA
- 1998 "Pulmonary complications of HIV-infection: new dilemmas."  
Medical Grand Rounds, Boston Veterans' Administration Medical Center.
- 1999 "Pulmonary Vasculitides"  
Medical Conference, Carney Hospital, Boston, MA.
- 2001 "Management of Latent TB Infection in HIV-Infected Individuals"  
Regional Conference on Tuberculosis Management, Boston Medical Center
- 2001 "Short Course Therapies for Latent TB Infection: SCRIPT 1"  
Boston TB Forum, Boston, MA
- 2001 Medical Grand Rounds "Tuberculosis Update"  
Boston Medical Center, Boston, MA
- 2002 "Developments in Tuberculosis Research"  
Regional Conference on Tuberculosis Management, Boston Medical Center
- 2003 "Controversies in Treatment of Latent TB Infection" and  
"Hepatotoxicity of Anti-Tuberculous Therapy"  
Massachusetts TB Update, Falmouth, MA
- 2006 Advances in TB Drug Development, Regional Tuberculosis Meeting, Salem NH
- 2006 Medical Grand Rounds "TB: Poised for the Great Leap Forward?"  
West Roxbury VAMC
- 2006 TB Drug Development, National Tuberculosis Controllers' Association, Atlanta

#### **Professional memberships**

American Thoracic Society, Massachusetts Thoracic Society.

#### **Offices and Committee Memberships**

- 1998 Interviewer, Internship Selection Committee, Boston University Medical Center
- 1999- Massachusetts Thoracic Society Council
- 1999- Chairman, Research Allocations Committee, MTS
- 2000- Member, TB Trials Consortium Immunology Working Group
- 2001- Chairman, TB Trials Consortium Retention and Recruitment Committee
- 2002- Member, Institutional Review Board, Boston University Medical Center
- 2002 Member, Institutional Review Board Panel B Ad hoc Audit Sub-committee.
- 2002- Secretary/Treasurer, Massachusetts Thoracic Society
- 2002- Member, TBTC Core Sciences Group
- 2003- Member, MTS Professional Education Committee
- 2003 Clinical Task Force, Pulmonary Center, BUMC.
- 2004-2006 Vice-President, Massachusetts Thoracic Society
- 2006-2008 President, Massachusetts Thoracic Society

#### **Peer Review Journal Reviewer**

- 2003-2005 International Journal of Tuberculosis and Lung Disease
- 2004- Expert Opinion on Drug Safety
- 2004- Clinical Infectious Diseases

2004- JAMA  
2005- Chest  
2006- Lancet

# **Research projects and contracts**

2002 Conference Chairman, Hepatotoxicity of Antituberculous Therapy, American Thoracic Society  
2001-2002 Centers for Disease Control Service Contract  
Co-Investigator  
2000-2001 Quanti-FERON ESAT6 test for *Mycobacterium tuberculosis* infection. Short-Course Rifampin and Pyrazinamide Compared with Isoniazid for Latent Tuberculosis Infection (SCRIPT 1 Multicenter Trial)  
Boston Site Co-PI  
1999-2004 National Heart, Lung and Blood Institute RO-1, "Chemokines in the Host Response to *Mycobacterium tuberculosis*"  
1999-2009 TB Trials Consortium, CDC, Co-PI  
1998-1999 Centers for Disease Control Service Contract  
Co-Principal Investigator with Dr. John Bernardo  
1995-1998 Evaluation of Quantiferon test for *Mycobacterium tuberculosis* infection. Parker B. Francis Fellowship in Pulmonary Research  
1995-1999 "Regulation of Lymphocyte Homing to the Lung in HIV Infection"  
Centers for Disease Control & Massachusetts Department of Public Health  
Co-PI with Dr. J. Bernardo  
1994-1999 Tuberculosis Prevention at Suffolk County House of Corrections  
National Heart, Lung and Blood Institute FIRST Award  
#1 R29 HL53249 02.  
1994-1995 "Pathogenesis of HIV Alveolitis and Role of a CD8 Subset"  
Massachusetts Thoracic Society, Edward Welch Research Fund,  
1992-1994 "Function of CD28<sup>+</sup> T cells in HIV Lung"  
American Lung Association Research Training Fellowship Award  
1984 "Blood Lymphocyte Recruitment in HIV CD8 Alveolitis"  
National Fund for Medical Education Award,  
"Development of a Medical Hypothesis"

# **Other work experience**

1983-84 Research Associate, Clinical Disease Staging Project, Department of Medical Education, Jefferson Medical College, Philadelphia, PA.  
1981-83 Editor, Facets Newsletter, Regional Spinal Cord Injury Center of Delaware Valley, Thomas Jefferson University Hospital, Philadelphia, PA

# **Publications**

## Peer-reviewed papers

Saukkonen, J.J., D. Cohn, F. Gordin, R. Jasmer, J. Jereb, C. Nolan, D. Nunes, C. Peloquin, S. Shenker, T. Sterling, D. Strader, R. Venkataramanan. Hepatotoxicity of Anti-Tuberculous Therapy (American Thoracic Society Official Statement). *In press*

Wan, Z. and Saukkonen, JJ. Distinct patterns of chemokines elicited by stimulation of monocytic cell surface receptors. *Submitted*.

Shieh F., G. Snyder J. Bernardo, C.R. Horsburgh, J. Saukkonen. Predicting Completion of Treatment for Latent Tuberculosis Infection (TLTBI). *American Journal of Respiratory and Critical Care Medicine, in press*.



- Jasmer, R.M., L. Bozeman, M.D. Cave, J.J. Saukkonen, K. Schwartzman, B. Metchock, W. Burman. Genotyping of *Mycobacterium tuberculosis* to Distinguish Treatment Failure or Relapse from Reinfection. *American Journal of Respiratory and Critical Care Medicine* 2004 Dec 15;170(12):1360-6.
- Saukkonen, J.J. Rifampin and Pyrazinamide from Clinical Trial to General Practice. *Clinical Infectious Diseases*. 2004. Aug 15;39(4):566-8. [Invited editorial].
- Wilson, K. and J.J. Saukkonen. Respiratory failure due to addictive substances. *Journal of Intensive Care Medicine*. 2004. Jul-Aug;19(4):183-93.
- R.M. Jasmer, D. C. Snyder, J. J. Saukkonen., P. C. Hopewell, J. Bernardo, M. D. King., L. M. Kawamura M.D., and C. L. Daley . Short-Course Rifampin and Pyrazinamide Compared with Isoniazid for Latent Tuberculosis Infection: A Cost-Effectiveness Analysis Based on a Multicenter Clinical Trial. *Clinical Infectious Diseases*, 2004. 38: 363-369.
- R. Jasmer, J.J. Saukkonen, H. M. Blumberg, C. L. Daley, J. Bernardo, E. Vittinghoff, M. King, L. M. Kawamura, and P. Hopewell. Short-Course Rifampin and Pyrazinamide Compared with Isoniazid for Latent Tuberculosis Infection: A Multicenter, Prospective, Randomized, Controlled Trial. *Annals of Internal Medicine* 137:640-647, 2002.
- Saukkonen, J.J., M. Thomas, R. Strieter, M. Burdick, Bazydlo, B., J. Keane, H. Kornfeld. 2002.  $\beta$ -Chemokines Are Induced by *Mycobacterium tuberculosis* and Inhibit Its Growth. *Infection and Immunity* 70(4):1684-93.
- Jones, B., K. Heldwein, T. Means, J. Saukkonen, M. Fenton. Differential roles of toll-like receptors in the elicitation of pro-inflammatory responses by macrophages. *Annals of Rheumatic Diseases*. 60 (Suppl 3): III6-III12
- Saukkonen, J.J., A. Tantri, J.S. Berman. 1999. Costimulation of CD28<sup>+</sup> T cells through  $\beta_1$ -integrins induces activation and a limited repertoire of intracellular cytokines. *Scandinavian Journal of Immunology*. 50: 145-149.
- Mashikian, M., R. Tarpy, J. Saukkonen, K. Lim, G. Fine, W. Cruikshank, D. Center. 1998. Identification of IL-16 as the lymphocyte chemotactic activity in the bronchoalveolar lavage fluid of histamine-challenged asthmatic patients. *Journal of Allergy and Clinical Immunology* 101: 786-92.
- Saukkonen, J.J., S. Furfaro, K. Mahoney, E. Wright, M. Burdick, R. Strieter, H. Kornfeld, J.S. Berman. 1997. Transendothelial migration of blood T-lymphocytes from HIV+ individuals. *AIDS* 11: 1-7.
- Tucci, M. S. I. Hammerman, S. Furfaro, J.J. Saukkonen, T. Conca, H.W. Farber. 1997. Distinct effect of hypoxia on endothelial cell proliferation and cycling. *American Journal of Physiology* 272 (Cell Physiology 41): C1700-C1708.
- Berman, J.S., K. Mahoney, J.J. Saukkonen, J. Masuyama. 1995. Migration of distinct subsets of CD8<sup>+</sup> blood T cells through endothelial cell monolayers in vitro. *Journal of Leukocyte Biology* 58: 317.

Saukkonen, J.J., H. Kornfeld, J.Berman. 1993. Expansion of a CD8<sup>+</sup>CD28<sup>-</sup> T cell population in blood and lungs of HIV<sup>+</sup> patients. *Journal of Acquired Immunodeficiency Syndromes* 6: 1194.

#### Book chapters

Mirabile-Levens, E., K. Wilson, J.J. Saukkonen. "Pulmonary complications of addictive substances" in: *Principles of Addiction Medicine*, 3<sup>rd</sup> edition, American Society of Addiction Medicine, ed. M. Mayo-Smith. 2003.

Saukkonen, J.J. 2001. "Pulmonary eosinophilia" in: *Textbook of Medicine and Surgery*, M. Zevitz (eds.), [www.emedicine.com](http://www.emedicine.com).

Saukkonen, J.J. 2000. "Lymphocytic Interstitial Pneumonia" in: *Textbook of Medicine and Surgery*, M. Zevitz (eds.), [www.emedicine.com](http://www.emedicine.com).

Saukkonen, J.J. 1997. "Pulmonary Vasculitides" in: *A Practical Approach to Pulmonary Medicine*, Goldstein, R., J. O'Connell, J. Karlinsky (eds.), Lippincott-Raven, Philadelphia, PA, pp.458-471.

Saukkonen, J.J. and H. Farber. 1997. "Lymphocytic Interstitial Pneumonitis and Non-specific Interstitial Pneumonitis" in: *AIDS and Respiratory Medicine*, Ziemla, A., R. Miller, Johnson (eds.), Chapman and Hall Ltd., London, England, pp.331-343.

Saukkonen, J.J. and D. Center. 1996. "Regulation of T cells in Interstitial Lung Diseases" in: *Pulmonary Pharmacology and Therapeutics*, Leff, A. (ed.), McGraw-Hill, New York, NY, pp. 331-344.

Saukkonen, J.J. and D.M. Center. 1995. "Immunologic Lung Diseases" in: *Clinical Immunology: Principles and Practice*, Rich, R. (ed.), Mosby-Yearbook Inc., St. Louis, MO, p. 1551-1578.

#### Manuscripts in preparation

Selim, B. and Saukkonen, J.J. Mechanisms of drug-induced bronchoconstriction.

Saukkonen J.J., Zhi W., Mateleska K., Jones, B. and Fenton, M. Toll receptors-2 and -4 on human alveolar macrophages mediate secretion of distinct patterns of cytokines in vitro.

#### Case Reports

Hendra, K. and J.J. Saukkonen. 1996. Erosion into the Right Mainstem Bronchus by an Esophageal Stent. *Chest* 110: 857-858.

#### Abstracts

Selim, B.J., J. Bernardo, C.R. Horsburgh, V. Harris, J.J. Saukkonen. *Mycobacterium tuberculosis*-positive Sputum Cultures in Asymptomatic Patients with Upper Lobe Pulmonary Fibrosis and Positive Tuberculin Skin Tests. *American Journal of Respiratory and Critical Care Medicine* In press.

Saukkonen, J., J. Belisle, Z.Wan. Secreted mycobacterial antigens and lipopolysaccharide (LPS) down-regulate receptors for microbial recognition, for chemokines, and for costimulation. *American Journal of Respiratory and Critical Care Medicine* In press.

Saukkonen, J., G. Snyder, F. Shieh, J. Bernardo, C.R. Horsburgh. Risk Factors for Adherence to Treatment for Latent Tuberculosis Infection (TLTBI). *American Journal of Respiratory and Critical Care Medicine* In press.



- Saukkonen J.J., and Zhi W. Engagement of macrophage scavenger and mannose receptors elicits secretion of distinct patterns of cytokines in vitro. 2003. *American Journal of Respiratory and Critical Care Medicine*
- Saukkonen J.J., Zhi W., Mateleska K., Jones, B. and Fenton, M. Toll receptors-2 and -4 on human alveolar macrophages mediate secretion of distinct patterns of cytokines in vitro. *American Journal of Respiratory and Critical Care Medicine*
- Saukkonen, J., M. Jeong, T. Means, K. Mateleska, H. Kornfeld, M. Fenton., In Vitro HIV-1 Infection of Human Alveolar Macrophages (AM) Downregulates Toll-like Receptors (TLR)-2 and -4. *American Journal of Respiratory and Critical Care Medicine*
- Saukkonen, J.J., C. Reardon, D. Orlow, H. Kornfeld. The  $\beta$ -chemokines MIP-1 $\alpha$  and RANTES promote phagocytosis of *Mycobacterium tuberculosis* by macrophages. *Journal of Allergy and Clinical Immunology* 105: S110.
- Saukkonen, J.J., B. Bazydlo, H. Remold, H. Kornfeld. The  $\beta$ -chemokines MIP-1 $\alpha$ , MIP-1 $\beta$  and RANTES suppress intracellular growth of *Mycobacterium tuberculosis* (MTB) in vitro. *American Journal of Respiratory and Critical Care Medicine*
- Saukkonen, J.J., M. Thomas, M. Burdick, R. Strieter, J. Keane, H. Kornfeld. 1998 *In vitro* infection of human alveolar macrophages (HAM) with *Mycobacterium tuberculosis* (MTB) induces  $\alpha$ - &  $\beta$ - chemokine (CK) expression. *American Journal of Respiratory and Critical Care Medicine* 157: A216.
- Saukkonen, J.J., A. Tantri, J.S. Berman. 1997. Activation of CD28- T cells induces limited repertoire of intracellular cytokines. *American Journal of Respiratory and Critical Care Medicine* 155: A541.
- Saukkonen, J.J., S. Furfaro, K. Mahoney, H. Kornfeld, J. Berman. 1995. Transendothelial migration of blood T-lymphocytes from HIV-infected individuals. *American Journal of Respiratory and Critical Care Medicine* 151: A452.
- Furfaro, S., K. Mahoney, J.J. Saukkonen, J.S. Berman. 1995. Cytokine stimulation of endothelial cell monolayers in vitro alters preferential transmigration of T lymphocyte phenotypes. *American Journal of Respiratory and Critical Care Medicine* 151: A802.
- Tarpy, R., W. Cruikshank, J.J. Saukkonen, K. Lim, G. Fine, D. Center. 1995. Lymphocyte chemotactic factor (LCF) in bronchoalveolar lavage fluid (BALF) of histamine-challenged asthmatics. *American Journal of Respiratory and Critical Care Medicine* 151: A777.
- Furfaro, S., K. Mahoney, J.J. Saukkonen, J.S. Berman. 1994. Preferential in vitro transendothelial migration of CD4<sup>+</sup> lymphocytes in sarcoidosis. *American Journal of Respiratory and Critical Care Medicine* 149: A11.
- Saukkonen, J.J., H. Kornfeld, J.S. Berman. 1993. Markedly reduced CD28 expression in CD8 cells in bronchoalveolar lavage fluid and blood from HIV seropositives. *Journal of Cellular Biochemistry* S17D: 355.
- Berman, J.S., K. Mahoney, J.J. Saukkonen, J. Masuyama. 1993. Preferential migration of CD28<sup>hi</sup>CD8<sup>+</sup> blood T cells through normal and cytokine-stimulated endothelial cell monolayers

in vitro. *Clinical Research* 41: 171A.

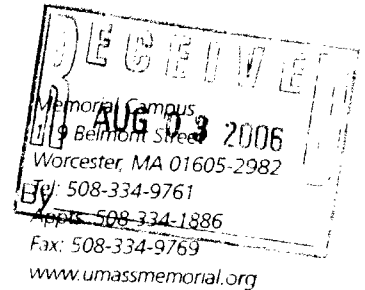
Saukkonen, J.J., H. Kornfeld, J.S. Berman. 1992. Activation of CD8<sup>+</sup> blood T cells: early expression of HLADR. *Clinical Research* 40: 152A.

Saukkonen, J.J., H. Kornfeld, J.S. Berman. 1992. Expression of activation markers by CD8<sup>+</sup> T cells in BAL of patients infected with HIV indicates long term as well as recent activation. *American Review of Respiratory Disease* 145: A822.

Saukkonen, J.J., H. Kornfeld, J.S. Berman. 1992. Preferential accumulation of a subset of CD8<sup>+</sup> T cells which express HLADR but not IL2R in the lung versus blood of normal individuals. *American Review of Respiratory Disease* 145: A145.



Medical Center  
Department of Orthopedics  
and Physical Rehabilitation



August 2, 2006

Attorney Jennifer Boyd Herlihy  
Adler, Cohen, Harvey, Wakeman & Guekguezian, LLP  
75 Federal Street  
Boston, MA 02110

Patrick J. Connolly, M.D.  
Professor,  
University of Massachusetts Medical School

Re: Jue Zhang vs. Shraga N. Goldberg, M.D.  
Civil Action Number: 04-12735PBS

Dear Attorney Herlihy:

I am board certified in orthopedic surgery and licensed in Massachusetts. My CV is attached hereto. Please allow this correspondence to discuss my opinions of the medical care and treatment of Jue Zhang in the above-captioned matter.

Opinion:

I have reviewed all the medical records of the plaintiff that have been gathered to date and the films of the abdominal CT scan taken at Beth Israel on November 7, 2001. The abdominal CT scan was requested on this 28-year-old patient due to complaints of "right upper quadrant pain" with no other information provided with respect to any other areas of pain or any infectious disease process. This testing was appropriate for that complaint. It is my opinion that the findings on the CT do not correlate with the complaint of the plaintiff of "right upper quadrant pain", and they are not likely to be related.

Further, it is my opinion that even if the soft tissue thickening described had been included in the reading, a biopsy of the area would not have been done. The finding was, in itself, non-specific and not diagnostic. Biopsy of the soft tissue thickening would have almost certainly required puncture of the lung in 2 locations, risking a pneumothorax (collapse of the lung), which can be dangerous, as well as risking bleeding and infection. A needle biopsy of the soft tissue thickening would also have been, more likely than not, low yield procedure, that is, no assurance of a diagnosis of tuberculosis. In the absence of symptoms referable to the area or of suspicion for tuberculosis or other disease at the time, invasive testing of the soft tissue thickening would not have been undertaken. The risks of the procedure would have substantially exceeded any potential benefit actually derived from the invasive procedure, since the chances of a making a diagnosis were very low. Three people would have needed to agree to such a biopsy: a physician, a radiologist and the patient, each of them confronting the risk and benefit imbalance

described. An orthopedic surgeon in this situation would not have recommended the procedure.

Also, since the soft tissue thickening was non-specific, age indeterminate and relatively small, it is also likely that no other diagnostic testing would have been done that would have led to a definitive diagnosis. In a single cut of the CT an area of lucency is seen in the vertebral body, a non-specific finding. It is not clear that, if it had been reported, that it would have led to further diagnostic testing invasive or non-invasive, given the lack of symptoms at the time. This case is illustrative of the notorious difficulties encountered in the diagnosis of spinal tuberculosis, particularly in the early phases. Typically, diagnosis of spinal tuberculosis is a protracted process, often taking months to years to emerge and then to be diagnosed.

The fragmented nature of the patient's health care likely contributed to the protracted nature of this patient's diagnostic process. She had health care and radiology services at seven different sites in Massachusetts and Connecticut over the years of her illness, including five different facilities prior to and including the diagnosis of spinal tuberculosis. The National Academies of Science's Institute of Medicine has identified fragmented health care as a significant contributor to problems in health care. Recognition of this patient's emerging problem may have been hampered by receiving health care and radiology services at multiple sites. More specifically, even if the CT reading had included "soft tissue thickening," the lack of continuity in her care would have been a major impediment to any diagnostic approach to this finding. At each change in health care site, a physician would have needed to come to the decision as to whether to pursue this non-specific, incidental, asymptomatic finding. While it is doubtful that any diagnostic studies would have been pursued on the basis of the CT findings, if such studies had been ordered, then continuity in care would have been needed.

Further, the additional studies would have been required on or about June 2002. At that time, the plaintiff was pregnant and the studies would not have been ordered until after the birth of her child on January 10, 2003.

Lastly, the plaintiff's strain of tuberculosis is particularly resistant to medical management and, therefore, it is more likely than not that a corpectomy would have been required.

In this case, I have billed \$3000.00 to date for record review and I will be compensated at \$500/hour for review of records and my testimony at deposition or at the time of trial would be at the flat rate.

Respectfully submitted,

Patrick J. Connolly, M.D.

Patrick Joseph Connolly, MD

ADDRESS :                   UMASS Memorial Spine Center  
                                  119 Belmont Street  
                                  Worcester, MA 01605

PERSONAL:                   Male  
                                  Date of Birth: December 27, 1955  
                                  Citizenship: USA  
                                  Marital Status: Married  
                                  Four Children

CURRENT POSITION:           Professor Orthopaedic Surgery University of Massachusetts  
                                  Chief, Division of Spinal Surgery  
                                  Director of Spine Center UMASS Memorial Hospitals  
  
                                  1/04 - Present

PREVIOUS POSITIONS:       Associate Professor Orthopaedic Surgery and Neurosurgery  
                                  SUNY Upstate Medical University  
                                  550 Harrison Center, suite 130  
                                  Syracuse, NY 13202

7/93 - 12/03

Private Practice Orthopaedics  
Rockville Orthopaedics  
Rockville, Connecticut

Courtesy Staff Newington Children's Hospital

7/91 - 6/93

FELLOWSHIP:               John P. Kostuik Fellow  
                                  University of Toronto, The Toronto Hospital

7/90 - 6/91

RESIDENCY:

Orthopaedic Surgery  
UMDNJ - Robert Wood Johnson Medical School  
New Brunswick, NJ

7/86 - 6/90

Orthopaedic Resident Children's Hospital of Pennsylvania

1/88 - 6/88

General Surgery (PG 2)  
UMDNJ - Robert Wood Johnson Medical School  
New Brunswick, NJ

7/85 - 6/86

General Surgery Internship  
Brown University Medical School  
Rhode Island Hospital  
Providence, RI

6/84 - 6/85

MEDICAL SCHOOL:

Northwestern University Medical School MD, 1984

PRE - MED:

Columbia University certificate of attendance, 1980

UNDERGRADUATE:

Montclair State University BA, Physical ED, 1977

HIGH SCHOOL:

Xavier, NYC 1973

ACTIVITY/ HONORS:

Dean's List, Columbia University  
Intercollegiate Football  
Phi Epsilon Kappa Scholarship Key  
Eagle Scout, Boy Scouts of America



CERTIFICATION:

Diplomat American Board of Orthopaedic Surgery  
Diplomat National Board of Medical Exam

MEDICAL LICENSE:

New York  
Massachusetts  
New Jersey (inactive)  
Connecticut (inactive)  
Hawaii (inactive)  
Louisiana (inactive)

SOCIETY MEMBERSHIP:

American Orthopaedic Associaion  
American Academy of Orthopaedic Surgeons  
American College of Surgeons  
Cervical Spine Research Society  
Scoliosis Research Society  
North American Spine Society  
Orthopaedic Research Society  
Irish American Orthopaedic Society  
Eastern Orthopaedic Association  
New England Orthopaedic Society  
Kostuik Society

PRESENTATIONS:

Complications of Open Tibia Fracture. New Jersey Orthopaedic Society, October 27, 1989, Sommerset, New Jersey

Anterior Cervical Plate Fixation with the Titanium Hollow Screw Plate System (THSP), Connolly PJ, Suh PB, Kostuik JP, Esses SI. Cervical Spinal Research Society 18th Annual Meeting, November 29, 1990, San Antonio, Texas

Dermatome Specific Corticospinal Evoked Potential (CSEP): Its Use in the Evaluation and Operative Treatment of Chronic Low-back Radicular Pain Syndromes. Connolly PJ, Malberg MI, Hajdu M, New Jersey Orthopaedic Society Annual Meeting, Orlando, Florida, April 17-20, 1991.

Long-term (Ten Year) follow-up of Idiopathic Adult Scoliosis. Connolly PJ, Kostuik JP, Worden Hawker R, Salo P, The Canadian Orthopaedic Association Annual Meeting, Calgary, Alberta, June 2-6. 1991.

Anterior Cervical Plate Fixation with the Titanium Hollow Screw Plate System (THSP), Connolly PJ, Suh PB, Kostuik JP, Esses SI, North American Spine Society, Keystone Colorado, July 31 - August 4th 1991.

Dermatome Specific Corticospinal Evoked Potential (CSEP): Its Use in the Evaluation and Operative Treatment of Chronic Low-back Radicular Pain Syndromes, Connolly PJ, Malberg MI, Hajdu M., North American Spine Society, Keystone, Colorado, July 31st - August 4th 1991.

Long-term (Ten Year) follow-up of Idiopathic Adult Scoliosis, Connolly PJ, Kostuik JP, VonSchroeder H, Salo P. North American Spine Society, Keystone, Colorado, July 31st - August 4th 1991.

The use of Dermatome Specific Corticospinal Evoked Potential (CSEP): Its use in the Evaluation and operative Treatment of Lumbar Radicular Pain Syndromes.: A follow up Report, Kopacz KJ, Malberg MI, Hajdu M, Connolly PJ. North American Spine Society, Boston, Massachusetts, July 9 - 11, 1992

Idiopathic Adolescent Scoliosis: A long term (minimum 10 years) follow up following Harrington Instrumentation into the lumbar spine. PJ Connolly, HP vonSchroeder, GE Johnston, JP Kostuik. Scoliosis Research Society Annual Meeting, September 19 - 23, 1993. Dublin, Ireland.

Lumbar Circumferential Lateral Wedge Osteotomy: Descriptions of technique and review of surgical experience. JP Kostuik, PJ Connolly, E Munting. Scoliosis Research Society Annual Meeting. September 18 - 23, 1993. Dublin, Ireland.

## PRESENTATIONS CONTINUED

Idiopathic Adolescent Scoliosis: A long term (minimum 10 years) follow up following Harrington Instrumentation into the lumbar spine. PJ Connolly, HP vonSchroeder, GE Johnston, HP Kostuik. North American Spine Society, 8th Annual Meeting. October 13 - 15, 1993. San Diego, California.

Lumbar Circumferential Lateral Wedge Osteotomy: Descriptions of technique and review of surgical experience. PJ Connolly, E. Munting, HP Kostuik. North American Spine Society, 8th Annual Meeting, October 13 - 15, 1993. San Diego, California.

Anterior Cervical Fusion: Outcome Analysis of Patients Fused with and without Anterior Cervical Plates. PJ Connolly, SE Esses, JP Kostuik. New England Orthopaedic Society, Annual Fall Meeting, November 19&20, 1993. Boston, Mass.

Anterior Cervical Fusion: Outcome Analysis of Patients Fused with and without Anterior Cervical Plates. PJ Connolly, SE Esses, JP Kostuik. Cervical Spine Research Society, Twenty-First Annual Meeting, December 1-4, 1993. New York, New York.

Comparative Study of Anterior Cervical Fusion Using Allograft vs. Autograft Bone. SC LEE, KM Incorvaia, RH Fay, MW Jones, PJ Connolly, BE Fredrickson, HA Yuan. Spine Fellow Conference, November 18, 19 1993. New Orleans, LA.

Spinal Injuries in Sports. PJ Connolly, M.D. 1994 Winter Sports Medicine Symposium. February 16, 1994. Syracuse N.Y.

Anterior Cervical Fusion: Outcome Analysis of Patients Fused with and without Anterior Cervical Plates. PJ Connolly, SE Esses, JP Kostuik. Spine Across the Sea, North American Spine Society and Japanese Spine Research Society combined meeting. April 18-21, 1994. Maui, Hawaii.

Degenerative Lumbar Spondylolisthesis: A Meta-Analysis of Literature of Literature 1970-1993. SM Mardjetko, PJ Connolly, S Shott. Pedicle Screw Presentation to the FDA Scientific Panel July 1994.

Degenerative Lumbar Spondylolisthesis: A Meta-Analysis of Literature of Literature 1970-1993. SM Mardjetko, PJ Connolly, S Shott. North American Spine Society, 9th Annual Meeting. October 19-22, 1994, Minneapolis, Minnesota.

## PRESENTATIONS CONTINUED

The Prevalence of Cervical Spondylolisthesis. Kopacz KJ ,Connolly PJ . Cervical Spinal Research Society 22nd Annual Meeting, November 29-December 2 1994 Baltimore, MD.

Anterior Cervical Fusion:Outcome Analysis of Patients Fused with and without Anterior Cervical Plates.PJ Connolly, SE Esses, JP Kostuik. American Academy of Orthopaedic Surgeons 62nd Annual Meeting Orlando FL. February 16-21, 1995 .

Current Investigation in Thoroscopic and Laproscopic Spine Surgery.Connolly PJ. The 1995 Biennial Meeting of The Irish American Orthopaedic Society, Williamsburg, VA, May 3 - 7, 1995.

Video Assisted Thoracic Corpectomy and Spinal Reconstruction : a Biomechanical Analysis of Open Vs. Endoscopic Technique. PJ Connolly, M Clem, R Kolata, N Ordway, HA Yuan. 30th Annual Meeting of the Scoliosis Research Society,Asheville, NC. September 13-16, 1995.

Video Assisted Thoracic Corpectomy and Spinal Reconstruction : a Biomechanical Analysis of Open Vs. Endoscopic Technique. PJ Connolly, M Clem, R Kolata, N Ordway, HA Yuan. 10th Annual Meeting of the North American Spine Society, Washington D.C., October 18-21, 1995.

Video Assisted Thoracic Corpectomy and Spinal Reconstruction : a Biomechanical Analysis of Open Vs. Endoscopic Technique. PJ Connolly, M Clem, R Kolata, N Ordway, HA Yuan. 12th Annual Meeting of the Joint Section On Disorders of The Spine and Peripheral Nerves of The American Association of Neurological Surgeons and Congress of Neurological Surgeons, Orlando,FL. Febuary 28 - March 2 1996 .

Video Assisted Thoracic Discectomy and Anterior Release : A Biomechanical Analysis of Open vs. Endoscopic Technique. PJ Connolly,MD, R Kolata DVM ,NR Ordway MS, V Vamvanij,MD, Eric Wall,MD., T Sacks, BS, KA Mann,PhD., HA Yuan. 27th Annual Meeting of The Eastern Orthopaedic Association, Hilton Head Island, SC, October 16 - 20, 1996.

Lumbar Interbody Fusion Cages. PJ Connolly, MD. New England Orthopaedic Society Fall Meeting, Boston, MA, November 20, 1997.

## PRESENTATIONS CONTINUED

Characteristics of Unicortical and Bicortical Lateral Mass Screws in the Cervical Spine. Eric Seybold, MD., PJ Connolly, MD. New England Orthopaedic Society Fall Meeting, Boston, MA, November 20, 1998.

Characteristics of Unicortical and Bicortical Lateral Mass Screws in the Cervical Spine. Eric Seybold, MD., PJ Connolly, MD. Cervical Spinal Research Society 26th Annual Meeting, December 3-5, 1998, Atlanta, GA.

Characteristics of Unicortical and Bicortical Lateral Mass Screws in the Cervical Spine. Eric Seybold, MD., PJ Connolly, MD. Orthopaedic Research Society Annual meeting, Anaheim, CA February 1999.

Return to Play Following Cervical Spinal Injury. Christina Morganti, MD, Colleen A. Sweeney, MA, Stephen A. Albanese, MD, Timothy Hosea, MD♣, Corey Burak, BA, Patrick J. Connolly, MD. Irish American Orthopaedic Society 10th Bi-Annual Meeting, Kilkenny, Ireland, May 20 – 24, 1999.

Return to Play Following Cervical Spinal Injury. Christina Morganti, MD, Colleen A. Sweeney, MA, Stephen A. Albanese, MD, Timothy Hosea, MD♣, Corey Burak, BA, Patrick J. Connolly, MD. New England Orthopaedic Society Spring Meeting, Maine, June 4-6, 1999.

Restoration of Cervical Lordosis: Analysis of surgical techniques. Soulez, c., Matan, A., Wulffe, WW., Ordway, N., Connolly, PJ. New England Orthopaedic Society Spring Meeting, Maine, June 4-6, 1999.

Return to Play Following Cervical Spinal Injury. Christina Morganti, MD, Colleen A. Sweeney, MA, Stephen A. Albanese, MD, Timothy Hosea, MD♣, Corey Burak, BA, Patrick J. Connolly, MD. 30th Annual Meeting of The Eastern Orthopaedic Association, Vienna, Austria, October 16 - 20, 1999.

Recurrent Laryngeal Nerve Injury with Anterior Cervical Spine Surgery: Risk with Laterality of Surgical Approach. Beutler WJ, Sweeney CA, Connolly PJ. XVI Annual Meeting of the European Cervical Spine Research Society, London, UK, June 21 – 23, 2000.

Prospective Randomized Study of Anterior Lumbar Interbody Fusion Cages: Comparative Clinical Study of the Titanium Interbody Spacer (TIS) and the BAK Fusion Device. Patrick J. Connolly, MD; Colleen A. Sweeney, MA; Emily Keim MS; J. Talley

PRESENTATIONS CONTINUED

Parrott, MD; Douglass R. Howard, MD; Paul A. Broadstone, MD. Spine Across the Sea 2000, Waikoloa, Hawaii, July 23 – 27, 2000.

Recurrent Laryngeal Nerve Injury with Anterior Cervical Spine Surgery: Risk with Laterality of Surgical Approach. Beutler WJ, Sweeney CA, Connolly PJ. 28th Annual Meeting of the Cervical Spine Research Society, Charleston, NC Nov.30- Dec. 2, 2000.

Recurrent Laryngeal Nerve Injury with Anterior Cervical Spine Surgery: Risk with Laterality of Surgical Approach. Beutler WJ, Sweeney CA, Connolly PJ. 69th Annual Meeting of The American Association of Neurological Surgeons (AANS), April 21-26, 2001.

Recurrent Laryngeal Nerve Injury with Anterior Cervical Spine Surgery: Risk with Laterality of Surgical Approach. Beutler WJ, Sweeney CA, Connolly PJ. 69th Annual Meeting AANS/CNS Joint Section on Spine. Feb. 14-17, 2001, Phoenix, AZ.

A Rational for Obtaining Post Operative Imaging after Transpedicular Fixation of the Spine. Dahari Brooks, Kevin Setter, Patrick Connolly. New England Orthopaedic Society Fall Meeting, Boston, MA, November 16, 2001

Restoration Of Cervical Lordosis and Neuroforaminal Height, Analysis of Three Surgical Techniques. Wulff, WEA., Jenis, L, Matan, A, Orway, N, Connolly, PJ. 29th Annual Meeting of the Cervical Spine Research Society, Monterey, CA, November 29 – December 1, 2001.

Airway Complications Associated with Anterior Cervical Spine Surgery. HC Sagi, MD, W Buetler, MD, E Carroll, MD, PJ Connolly, MD 29th Annual Meeting of the Cervical Spine Research Society, Monterey, CA, November 29 – December 1, 2001.

Sensitivity and Specificity of Plain Radiographs and CT in Assessing Lumbar Pedicle Screw Placement. D Brooks, R Manos, R Benz, J Klena, PJ Connolly. Annual Meeting for the International Society for the Study of the Lumbar Spine, May, 2002

Prospective Randomized Study of Anterior Lumbar Interbody Fusion Cages with a Minimum Two Year Follow-up. Patrick J. Connolly, MD; Colleen A. Sweeney, MA; Emily Keim MS; J. Talley Parrott, MD; Douglass R. Howard, MD; Paul A. Broadstone, MD. North American Spine Society Annual Meeting, Montreal, Oct. 25, 2002

Sensitivity and Specificity of Plain Radiographs and CT in Assessing Lumbar Pedicle Screw Placement. D Brooks, R Manos, R Benz, J Klena, PJ Connolly. North American Spine Society Annual Meeting, Montreal, Oct. 25, 2002



## PRESENTATIONS CONTINUED

The Role of Steroids in the Prevention of Airway Complications Associated with Anterior Cervical Spine Surgery. D Brooks, HC Sagi, MD, W Buetler, MD, D Riew, MD, PJ Connolly, MD 29th Annual Meeting of the Cervical Spine Research Society, Miami FL, November 29 – December 1, 2002.

Short Segment Posterior Indirect Reduction and Stabilization of Thoracolumbar Burst Fractures. Minimum Two Year Follow-Up. D.Brooks MD; J. McLaughlin M.S IV; P. Connolly MD; B.Fredrickson MD. Annual Meeting of North American Spine Society, Chicago IL. October 27-30, 2004.

## POSTERS AND SCIENTIFIC EXHIBITS:

Lumbar Sacral Fracture Dislocation Recognition and Treatment. Connolly, PH. Cook SS, Malberg MI Scientific Exhibit AAOS, Las Vegas, February 1989

Dermatome Specific Corticospinal Evoked Potential (CSEP): Its use in the Evaluation and Operative Treatment of Lumbar Radicular Pain Syndrome. Connolly, PJ, Malberg MI, Hajdu M, Poster Exhibit Combined Meeting of the Orthopaedic Research Society of USA, Japan and Canada, Banff, Alberta . October 21-23, 1991

Dermatome Specific Corticospinal Evoked Potential (CSEP): Its use in the Evaluation and Operative Treatment of Lumbar Radicular Pain Syndromes. Connolly PJ, Malberg MI, Hajdu M, Poster Exhibit AAOS, Washington, D.C., February 20-25, 1992

Comparative Study of Anterior Cervical Fusion Using Allograft vs. Autograft Bone. SC LEE, KM Incurvaia, PJ Connolly, BE Fredrickson, HA Yuan. Spine Across the Sea, North American Spine Society and Japanese Spine Research Society combined meeting. April 18-21, 1994. Maui, Hawaii.

Comparative Study of Anterior Cervical Fusion Using Allograft vs. Autograft Bone. SC LEE, KM Incurvaia, PJ Connolly, BE Fredrickson, HA Yuan. Cervical Spinal Research Society 22nd Annual Meeting Baltimore, MD. November 29-December 2 1994 .

Comparative Study of Anterior Cervical Fusion Using Allograft vs. Autograft Bone. SC LEE, KM Incorvaia, PJ Connolly, BE Fredrickson, HA Yuan. American Academy of Orthopaedic Surgeons 62nd Annual Meeting Orlando FL. February 16-21, 1995 .

The Prevalence of Cervical Spondylolisthesis KJ Kopacz, P J Connolly. American Academy of Orthopaedic Surgeons 62nd Annual Meeting Orlando FL. February 16-21, 1995.

Video Assisted Thoracic Corpectomy and Spinal Reconstruction : a Biomechanical Analysis of Open Vs. Endoscopic Technique. PJ Connolly, M Clem, R Kolata, N Ordway, HA Yuan. 30th Annual Meeting of the Scoliosis Research Society, Asheville, NC. September 13-16, 1995.

Endoscopic Retroperitoneal Approach to the Lumbar Spine. Audio Visual Exhibit. PJ Connolly, HA Yuan M Clem, R Kolata . 30th Annual Meeting of the Scoliosis Research Society, Asheville, NC. September 13-16, 1995.

Video Assisted Thoracic Corpectomy and Spinal Reconstruction : a Biomechanical Analysis of Open Vs. Endoscopic Technique. PJ Connolly, M Clem, R Kolata, N Ordway, HA Yuan. 26th Annual Meeting of the Eastern Orthopaedic Association, Rome, Italy. October 11-15, 1995.

Intraoperative Motion Segments as a Guide to the Surgical Level in the Lumbar Spine. PJ Connolly. 26th Annual Meeting of the Eastern Orthopaedic Association, Rome, Italy. October 11-15, 1995.

Video Assisted Thoracic Corpectomy and Spinal Reconstruction : a Biomechanical Analysis of Open Vs. Endoscopic Technique. PJ Connolly, M Clem, R Kolata, N Ordway, HA Yuan. 10th Annual Meeting of the North American Spine Society, Washington D.C., October 18-21, 1995.

Intraoperative Motion Segments as a Guide to the Surgical Level in the Lumbar Spine. PJ Connolly. 10th Annual Meeting of the North American Spine Society, Washington D.C., October 18-21, 1995.

Video Assisted Thoracic Corpectomy and Spinal Reconstruction : a Biomechanical Analysis of Open Vs. Endoscopic Technique. PJ Connolly, M Clem, R Kolata, N Ordway, HA Yuan. American Academy of Orthopaedic Surgeons 63rd Annual Meeting Alanta, GA. February 21 - 27 , 1995. .

Endoscopic Retroperitoneal Approach to the Lumbar Spine. Audio Visual Exhibit. PJ Connolly, HA Yuan M Clem, R Kolata. 12th Annual Meeting of the Joint Section On Disorders of The Spine and Peripheral Nerves of The American Association of Neurological Surgeons and Congress of Neurological Surgeons, Orlando, FL. February 28 - March 2 1996 .

Biomechanical Assessment of Anterior Lumbar Interbody Fusion Using the BAK system: A comparison of Anterior vs. Lateral Insertion. L.A. Fay, Y.G. Zheng, G.S. Shapiro, K.A. Mann, P.J. Connolly, H.A. Yuan. International Society for the Study of the Lumbar Spine, annual meeting Burlington, Vermont June 25 – 29, 1996

Video Assisted Thoracic Corpectomy and Spinal Reconstruction : a Biomechanical Analysis of Open Vs. Endoscopic Technique. PJ Connolly, M Clem, R Kolata, N Ordway, HA Yuan. SICOT 20th World Congress, Amsterdam, The Netherlands, August 18 - 23, 1996.

Endoscopic Retroperitoneal Approach to the Lumbar Spine. Audio Visual Exhibit. PJ Connolly, HA Yuan M Clem, R Kolata. SICOT 20th World Congress, Amsterdam, The Netherlands, August 18 - 23, 1996.

Video Assisted Thoracic Discectomy and Anterior Release : A Biomechanical Analysis of Open vs. Endoscopic Technique. PJ Connolly, MD, R Kolata DVM ,NR Ordway MS, V Vamvanij, MD, Eric Wall, MD., T Sacks, BS, KA Mann, PhD., HA Yuan. 31th Annual Meeting of The Scoliosis Research Society, Ottawa, Ontario, Canada, September 25 - 28, 1996.

Video Assisted Thoracic Discectomy and Anterior Release : A Biomechanical Analysis of Open vs. Endoscopic Technique. PJ Connolly, MD, R Kolata DVM ,NR Ordway MS, V Vamvanij, MD, Eric Wall, MD., T Sacks, BS, KA Mann, PhD., HA Yuan. 27th Annual Meeting of The Eastern Orthopaedic Association, Hilton Head Island, SC, October 16 - 20, 1996.

Video Assisted Thoracic Discectomy and Anterior Release : A Biomechanical Analysis of Open vs. Endoscopic Technique. PJ Connolly, MD, R Kolata DVM ,NR Ordway MS, V Vamvanij, MD, Eric Wall, MD., T Sacks, BS, KA Mann, PhD., HA Yuan. 11th Annual Meeting of the North American Spine Society, Vancouver, British Columbia., October 23-26, 1996.

Video Assisted Thoracic Discectomy and Anterior Release : A Biomechanical Analysis of Open vs. Endoscopic Technique. PJ Connolly, MD, R Kolata DVM ,NR Ordway MS, V Vamvanij, MD, Eric Wall, MD., T Sacks, BS, KA Mann, PhD., HA Yuan. 10th Combined Meeting of the Orthopaedic Associations of the English Speaking World, Auckland, New Zealand., February 1-6, 1998.

Video Assisted Thoracic Discectomy and Anterior Release : A Biomechanical Analysis of Open vs. Endoscopic Technique. PJ Connolly, MD, R Kolata DVM ,NR Ordway MS, V Vamvanij, MD, Eric Wall, MD., T Sacks, BS, KA Mann, PhD., HA Yuan. Third Combined Meeting of the Orthopaedic Research Societies, Hamamatsu, Japan., September 28-30, 1998.

Return to Play Following Cervical Spinal Injury. Christina Morganti, MD, Colleen A. Sweeney, MA, Stephen A. Albanese, MD, Timothy Hosea, MD♣, Corey Burak, BA, Patrick J. Connolly, MD. Cervical Spinal Research Society 26th Annual Meeting, December 3-5, 1998, Atlanta, GA.

Restoration of Cervical Lordosis: Analysis of surgical techniques. Soulez, c., Matan, A., Wulffe, WW., Ordway, N., Connolly, PJ.. XV Annual Meeting of Cervical Spine Research Society, European Section, Strasbourg, France, June 30 – July 3, 1999.

Restoration of Cervical Lordosis: Analysis of surgical techniques. Matan, A., Wulff, WW. Ordway, N., Soultz, C., Seybold, E., Connolly, PJ.. 27th Annual Meeting of the Cervical Spine Research Society, Seattle, WA, December 16-18, 1999.

Validation of Probe Measurement of In-Vitro Cervical Neuroforamina by CT Image Correlation. Matan, A., Wulff, WW. Ordway, N., Soultz, C., Seybold, E., Connolly, PJ.. 27th Annual Meeting of the Cervical Spine Research Society, Seattle, WA, December 16-18, 1999.

Fractures of the Cervical Spine in Ankylosing Spondylitis and Diffuse Idiopathic Skeletal Hyperostosis. Boakye, Vaccaro, Sweeney, Connolly. 29th Annual Meeting of the Cervical Spine Research Society, Monterey, CA, November 29 – December 1, 2001.

Outcome Analysis of First Generation Unicortical Cervical Plates. MY Bennett, WJ Beutler, PJ Connolly, CSRS European, Paris, 2002

Prospective Randomized Study of Anterior Lumbar Interbody Fusion Cages with a Minimum Two Year Follow-up. Patrick J. Connolly, MD; Colleen A. Sweeney, MA; Emily Keim MS; J. Talley Parrott, MD; Douglass R. Howard, MD; Paul A. Broadstone, MD. AAOS Annual Meeting, New Orleans, February 2003.

Short Segment Posterior Reduction and Stabilization for Thoracolumbar Burst Fractures. Minimum Two Year Follow-Up. D. Brooks, MD; J. McLaughlin M.S IV; P. Connolly MD; B. Fredrickson MD. International Society For The Study of The Lumbar Spine May 10-14, 2005.

Biomechanical Analysis of Pedicle Screw Fixation in a Multi-Segment Anterior Lumbar Interbody Fusion Model. D. Brooks, MD; N. Ordway MD; E. Dale MD; H. Serhan MD; P. Connolly MD. Annual Eastern Orthopedic Society, Boston, MA 2005

PUBLICATIONS:

1. Long-term (Ten Year) follow-up of Idiopathic Adult Scoliosis, Kostuik JP, Connolly PJ, Worden Hawker R, Salo P, JBJS 73B Supp II 109, 1991.
2. Unilateral Facet Dislocation of the Lumbosacral Junction. Connolly PJ, Esses SI, Heggenness M, Cook SS, Spine 1:1244-1248, 1992.
3. Anterior Cervical Plate Fixation with the Titanium Hollow Screw Plate System (THSP), Kostuik JP, Esses SI, Connolly PJ, Suh PB, Spine. 18:1273-1278, 1993
4. Degenerative Lumbar Spondylolisthesis: A Meta-Analysis of Literature of Literature 1970-1993.  
SM Mardjetko, PJ Connolly, S Shott . Spine 20S: 2256S - 2265S , 1994.
5. Idiopathic Adolescent Scoliosis: A long term (minimum 10 years) follow up following Harrington Instrumentation into the lumbar spine. PJ Connolly, HP vonSchroeder, GE Johnston, JP Kostuik.  
JBJS 77(A):1210 - 1216, 1995 .
6. Anterior Cervical Fusion: Outcome Analysis of Patients Fused with and without Anterior Cervical Plates. Connolly PJ, Esses SE, Kostuik JP,. Journal of Spinal Disorders Vol. 9 202 - 206 , 1996.
7. Video Assisted Thoracic Corpectomy and Spinal Reconstruction : a Biomechanical Analysis of Open Vs. Endoscopic Technique. PJ Connolly, M Clem, R Kolata, N Ordway, HA Yuan. Journal of Spinal Disorders Vol. 9 453 - 459, 1996.
8. Incomplete Intradural Lumbar Disk Herniation: Case Report and Review of the Literature. Connolly PJ, Rosenbaum AE, Sacks T, Kopacz KJ. Orthopaedics 20:977-979, 1997.
9. Bracing of Patients Following Fusion for Degenerative Lumbar Spine Problems. Connolly PJ.: Spine 23: 1426-1427, 1998.
10. The Prevalence of Cervical Spondylolisthesis. Kopacz KJ, Connolly PJ. ORTHOPAEDICS 22 vol. 7 677 - 679, 1999.
11. Video Assisted Thoracic Discectomy and Anterior Release: A Biomechanical Analysis of Open vs. Endoscopic Technique. PJ Connolly, MD, R Kolata DVM, NR

Ordway MS, V Vamvanij, MD, Eric Wall, MD., T Sacks, BS, KA Mann, PhD., HA Yuan. Orthopaedics, 22: #10, 1999.

12.Characteristics of Unicortical and Bicortical Lateral Mass Screws in the Cervical Spine. Eric Seybold, MD., PJ Connolly, MD. SPINE 24: 2397 – 2403, 1999.

13.Resident and Fellowship Guidelines: Educational Guidelines for resident training in spinal surgery. Herkowitz, HH, Connolly, PJ Gundry, CR., Varlotta, GP., Zedeblick, TA., Truumees, E.: Spine 25 2703- 2707, 2000.

14. Traumatic Atlantoaxial Distraction Injury: A Case Report. Eben A Carroll, BS., Brian Gordon, MD., Colleen Sweeney, MA., Stephen Joy, MD., Patrick J Connolly, MD. Spine 26: 454-457, 2001.

15.Return to Play Following Cervical Spinal Injury. Christina Morganti, MD, Colleen A. Sweeney, MA, Stephen A. Albanese, MD, Timothy Hosea, MD, Corey Burak, BA, Patrick J. Connolly, MD. Spine 26: 1131-1136, 2001

16.Recurrent Laryngeal Nerve Injury with Anterior Cervical Spine Surgery: Risk with Laterality of Surgical Approach. William J. Beutler, M.D., Colleen A. Sweeney, MA; Patrick J. Connolly, MD. Spine 26: 1337 – 1342, 2001.

17. Airway Complications Associated with Anterior Cervical Spine Surgery. HC Sagi, MD, W Buetler, MD, E Carroll, MD, PJ Connolly. Spine 27: 949 – 953, 2002.

18. Electro-Magnetic Field Based Image-Guided Spine Surgery  
Part One: Results of a Cadaveric Study Evaluating Lumbar Pedicle Screw Placement. HC Sagi, R Manos, R Benz, N Ordway, PJ Connolly. Spine 28: 2013 – 2018, 2003.

19. Electro-Magnetic Field Based Image-Guided Spine Surgery  
Part Two: Results of a Cadaveric Study Evaluating Thoracic Pedicle Screw Placement. HC Sagi, R Manos, R Benz, N Ordway, PJ Connolly. Spine 28: E351 – E354, 2003.



### Book Chapters

1. Anterior Cervical Plate Fixation. John P. Kostuik, M.D. Patrick J. Connolly, M.D. Chapter 16 163-174; Surgery for Spinal Cord Injuries, edited by Steven R. Garfin, M.D. and Bruce E. Northrup, M.D. Raven Press, Ltd., New York, 1993.
2. Anterior Instrumentation of The Cervical Spine. Patrick J. Connolly, M.D., Hansen A. Yuan, M.D. Chapter 101, Spine Care: Diagnosis and Treatment, Edited by Arthur H. White. C.V. Mosby 1995.
3. Cervical Spine Fractures. Patrick J. Connolly, M.D., Hansen A. Yuan, M.D. Chapter 104, Spine Care: Diagnosis and Treatment, Edited by Arthur H. White. C.V. Mosby 1995.
4. Endoscopic Retroperitoneal Approach to the Lumbar Spine. Patrick J. Connolly, M.D., Hansen A. Yuan, M.D. Atlas of Endoscopic Spine Surgery by John Regan and Paul McAfee. Quality Medical Publishing, 1995.
5. Cervical Trauma. Patrick J. Connolly, M.D., Hansen A. Yuan, M.D. Orthopaedic Knowledge Update V (OKU-V). AAOS Publications. 1996.
6. Non Operative Treatment Of Spinal Injuries. Bruce Fredrickson, M.D., Hansen A. Yuan, M.D., Patrick J. Connolly, M.D. Orthopaedic Knowledge Update: Trauma . AAOS Publications. 1996.
7. Cervical Trauma. Patrick J. Connolly, M.D., Robert Martin, M.D., Hansen A. Yuan, M.D. Spine Knowledge Update . AAOS Publications. 1996.
8. Complications of Spinal Surgery: Complications Associated with Posterior Instrumentation of the Spine. Connolly PJ., Yuan HA. in Rothman - Simeone THE SPINE, fourth edition. Herkowitz, Garfin, Balderson, Eismont, Bell, Wiesel (eds). WB Saunders, 1999.
9. Reconstruction of Anterior Column Gap: an Overview. Connolly PJ, Yuan HA. in REVISION SPINE SURGERY, Margulies, Aebi, Farcy (eds). Mosby, 1999.
10. Thoracolumbar Burst Fractures: Overview of Classification System. Chapter 5, 106 – 111, in Controversies in Spine Surgery, Vol. 1, Zdeblick, Benzel, Anderson, Stillerman (eds). Quality Medical Publishing, ST. Louis, MO, 1999.

11. Spondylolisthesis Bruce Fredrickson, M.D., Patrick J. Connolly, M.D. Orthopaedic Knowledge Update: Spine II . AAOS Publications. 2002.

12. Lumbar Corpectomy, Chapter 47, pg 218-222. Connolly PJ., in SURGICAL TECHNIQUES of the SPINE, Harer, Merola, (eds). Theime. 2003

13. Factors Affecting Surgical Decision Making, Chapter 8, pg 125-131. Connolly PJ. in SPINAL CORD MEDICINE, Lin(eds) . Demo Medical Publishers, New York, 2003

14. Concepts of Cervical Decompression. Matan AJ, Connolly PJ. Cervical Spine Research Society Text. In press.

#### TEXTBOOKS

Advanced Spinal Surgical Technologies. Editors, T Corbin, PJ Connolly, HA Yuan, QB Bao, S Boden. Quality Medical Publishing. 2005.

#### POSTGRADUATE COURSES

Co-Chairman, SRS/NASS Symposium on the role of Thoracoscopy in Spinal Deformity Surgery. July 19 - 21, 1995, Cincinnati, OH.

Visiting Professor, Barrow Neurological Institute and the University of Arizona Health Science Center. Surgical Techniques: Thorascopic Anterior Release for Spinal Deformity. August 31 - September 2, 1995.

Visiting Professor, University of Florida. Endoscopic Retroperitoneal Approach to the Lumbar Spine. Orlando FL, September 9 -14, 1995.

Co-Chairman, SRS Symposium on Thoracoscopy in Spinal Deformity Surgery. June 12 - 13, 1996, Cincinnati, OH.

Visiting Professor, Barrow Neurological Institute and the University of Arizona Health Science Center. Surgical Techniques: Thorascopic Anterior Release for Spinal Deformity. June 5 - 9, 1996.

Visiting Professor Spinal Retreat, Fractures of the Cervical Spine : Anterior and Posterior Stabilization. TAU Game Lodge, Johannesburg, South Africa, July 30 - August 4, 1996.

Faculty, Spine Tech Surgical Education course: BAK Lumbar Fusion Cage. Bioscience Overview, Anterior Surgical Approach. Minneapolis, MN.

Moderator, North American Spine Society UPDATE 1997: Bone Healing and Cages. October 22, New York, NY, 1997.

Moderator, General Session on Lumbar Spine Surgery, Complications in Lumbar Spine Surgery. Twelfth Annual meeting of the North American Spine Society, October 23 - 25, New York, NY, 1997.

Faculty, AO/ASIF Comprehensive and Advanced Spine Course, Montreal, Quebec, July 16-19, 1998.

Co-Chairman, NASS Resident Review course. New Brunswick, NJ, January 22-23, 1999.

Chairman, NASS Spine Care Review course. Chicago, IL, October 23 -24, 1999.

Chairman, NASS Spine Care Review course. New Orleans, LA. Oct. 25, 2000.

Invited Speaker, American Academy Orthopaedic Surgery, Symposium on Head and Neck Injuries in Athletes'. March 4, 2001, San Francisco, CA.

Co-Chairman, NASS Lumbar Spine course. Memphis, TN. March 9-10, 2001.

Invited Speaker, Controversies in Spine Care, 37th Annual Orthopaedic Symposium, St. Luke's Episcopal Hospital, Baylor University Medical School, April 27-28, 2001, Houston, Texas.

Faculty, AO/ASIF Comprehensive and Advanced Spine Course, Marco Island, FL, September 6-9, 2001.

Chairman, NASS Spine Care Review course. Seattle WA., Oct. 31 - Nov. 3, 2001.

Faculty, AO/ASIF Comprehensive and Advanced Spine Course, Newport, RI October 6-9, 2002.

Chairman, NASS Spine Care Review course. Montreal, Qe. Oct. 23, 2002.

Chairman, NASS Spine Care Review course. San Diego. Oct. 23, 2003

#### COMMITTEE APPOINTMENT

North American Spine Society

2004 Annual Meeting Program Committee	2003 - 2007
Membership Committee	2003 - 2006
Committee on Resident and Fellow Education	2001 – 2004
Committee on Resident and Fellow Education	1998 - 2001
Core Curriculum Task Force	1995 - 1999
Committee on Resident and Fellow Education	1997 - 1998
Scientific Poster Committee Chairperson	1997, 1998
Cervical Spine Research Society	
Editorial Committee	2003 - 2006
Exhibits Committee	1996 – 2000
American Academy of Orthopaedic Surgeons	
Adult Spine Evaluation Committee	1997 – 2003
Scoliosis Research Society	
Prevalence and Natural History Committee	1998 - 2000

## AWARDS

### 2001 Cervical Spine Research Society Clinical Fellow Research Award

Airway Complications Associated with Anterior Cervical Spine Surgery. HC Sagi, MD, W Buetler, MD, E Carroll, MD, PJ Connolly, MD.

### 1996 Outstanding Scientific Poster North American Spine Society

Video Assisted Thoracic Discectomy and Anterior Release : A Biomechanical Analysis of Open vs. Endoscopic Technique. PJ Connolly, MD, R Kolata DVM ,NR Ordway MS, V Vamvanij, MD, Eric Wall, MD., T Sacks, BS, KA Mann, PhD., HA Yuan.

### 1995 Canadian Back Institute Award

Presented at the annual alumni meeting for the Dept. Orthopaedic Surgery at the University of Toronto .

Idiopathic Adolescent Scoliosis: A long term (minimum 10 years) follow up following Harrington Instrumentation into the lumbar spine. PJ Connolly, HP vonSchroeder, GE Johnston, JP Kostuik.



*Department of Diagnostic Radiology*

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September 27, 2006

Heideh Ahari, M.D.  
Elizabeth J. Angelakis, M.D.  
Esfandiar Ansari, M.D.  
Nancy D. Baker, M.D.  
Richard A. Baker, M.D.  
Carl F. Beckmann, M.D.  
Andrew Bogdan, Ph.D.  
In Sup Choi, M.D.  
John T. Cuttino, M.D.  
Carolyn G. Dedrick, M.D.  
Dmitry Elentuck, M.D.  
Geoffrey A. Gardiner, Jr., M.D.  
Carl A. Geyer, M.D.  
Imma Goldberg, M.D.  
Audrey L. Hartman, M.D.  
Peter G. Hildenbrand, M.D.  
George A. Holland, M.D.  
Philip D. Kousoubri, MD.  
Carl R. Larsen, M.D., F.A.C.R.  
Grace M. Lee, M.D.  
Christopher P. Molgaard, M.D.  
Patricia M. Morris, M.D.  
Alain A. Pollak, M.D.  
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Christopher Scheirey, M.D.  
Francis J. Scholz, M.D., F.A.C.R.  
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Hongyu Shi, M.D., Ph.D.  
Vincent R. Sites, M.D.  
*Interim Chairman*  
Christoph Wald, M.D., Ph.D.  
Lisl Warren, M.D.  
Robert E. Wise, M.D., F.A.C.R.  
*Chairman Emeritus*

Attorney Jennifer Boyd Herlihy  
Adler, Cohen, Harvey, Wakeman & Guekguezian, LLP  
75 Federal Street  
Boston, MA 02110

**Re: Jue Zhang vs. Shraga N. Goldberg, M.D.**  
**Civil Action Number: 04-12735PBS**

Dear Attorney Herlihy:

I am a board certified radiologist, and I am licensed in Massachusetts. My CV is attached hereto. Please allow this correspondence to discuss my opinions of the care rendered by the radiologist, Shraga N. Goldberg, M.D. to Jue Zhang in the above-captioned matter.

I have reviewed the PACs of the abdominal CT Scan taken at Beth Israel on November 7, 2001, the hard films of same, and the report dictated discussing the findings on same by Dr. Goldberg. The abdominal CT scan was requested on this 28-year-old patient due to complaints of "right upper quadrant pain" with no other information provided with respect to any other areas of pain or any infectious disease process. This testing was appropriate for that complaint. The PACs CD contains three series: (1) the first is a scout which shows the coverage of the CT scan; (2) the second is 31 images; and (3) the third is 47 images. The 31 images start at the top of the liver and go down to the illiac crest. The 47 images start through the upper liver and go through the pelvis.

The report drafted by Dr. Goldberg was completely appropriate in its findings. Using hindsight and focusing on the specific areas where a disease process was located in 2003, the films show an abnormality. Within a reasonable degree of medical certainty, the average qualified radiologist would not have visualized these abnormalities. They are "subtle" and "missable" findings by the average qualified radiologist, and it is within the standard of care to have failed to mention them in the report. In further support of the subtlety of the finding, the radiologist who reviewed an abdominal CT scan of the plaintiff, taken at MetroWest Radiology Associates on October 2, 2001 (one month prior to the scan reviewed by Dr. Goldberg), also indicated an "otherwise unremarkable exam" with the exception of a probable cyst in the right ovary.



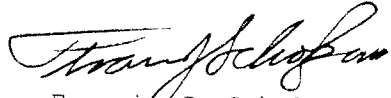
The standard protocol followed by radiology departments in conducting a CT scan of the abdomen is to visualize the entire liver, which includes the region of the dorsal spine where the plaintiff's tumor was located. This report lists findings of the liver, as well as lung bases, and, therefore, the area of tumor was visualized by that CT study.

Further, you would not take the patient's ethnicity into account until you had a working differential diagnosis that required that factor, which did not occur in this case.

With respect to the other information required under the Federal Rules, please be advised that I have not testified as an expert at trial in the last 4 years.

In this case, I will be compensated \$250/hour, plus any related travel costs for my testimony at the time of trial.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Francis J. Scholz".

Francis J. Scholz, M.D.

Sa/docs/Scholz/Zhang letter

CURRICULUM VITAE  
(6/1/06)

**FRANCIS J. SCHOLZ, M.D.**  
LAHEY CLINIC MEDICAL CENTER  
41 MALL ROAD  
P.O. BOX 541  
BURLINGTON, MA 01805  
781-744-8170

**PERMANENT ADDRESS:** 32 Grand Hill Drive  
Dover, MA 02030

**EDUCATION:**

College: Holy Cross College - 1965, B.S. Biology  
Medical School: Georgetown University - 1969, M.D.

**CAREER SUMMARY:**

Internship: Boston City Hospital – June 1969 – June 1970

Residency: Lahey Clinic Foundation  
Diagnostic Radiology – July 1970 – June 1973

Teaching Appointments: Clinical Professor  
Tufts Medical School  
July 1998 to Present

Clinical Associate Professor  
Tufts Medical School  
July 1995 to 1998

Clinical Assistant Professor  
Tufts Medical School  
July 1981 to June 1995

Clinical Instructor  
Harvard Medical School  
July 1975 to Present

Clinical Instructor  
Brigham and Women's Hospital  
July 1975 to Present

Clinical Associate  
Mass General Hospital  
July 1992 to Present

Hospital Appointments: Radiologist  
Department of Diagnostic Radiology  
Lahey Clinic Medical Center  
July 1975 to Present

Radiologist  
Peter Bent Brigham Hospital  
July 1973 – June 1975

Radiologist  
New England Baptist Hospital  
July 1975 – December 1980

Clinical Assistant Professor  
New England Medical Center  
Boston Veterans Administration  
Medical Center  
July 1980 to Present

**CERTIFICATION:** American Board of Radiology  
Diagnostic Radiology – January 1974

**LICENSURE:** #32484, Massachusetts - 1973

**PROFESSIONAL ACTIVITIES:**

MASSACHUSETTS RADIOLOGICAL SOCIETY  
State Chapter of American College of Radiology

- Member, 1975 to Present
- Secretary, 1979 - 1982
- President, 1984 - 1985

NEW ENGLAND ROENTGEN RAY SOCIETY

- Member, 1975 to Present
- President, 1992 - 1993

AMERICAN COLLEGE OF RADIOLOGY

- Member, 1975 to Present
- Fellowship conferred, 1983
- Vice-Chairman, Committee on Accreditation of the Commission on Radiologic Practice, 1981 - 1985
- Committee on Colon Cancer  
Member, 1995 to Present  
Chairman, 1998 to Present
- CPI/GI Expert Review Panel  
Member, 1996 to 1999
- ACR Representative to Colorectal Cancer Roundtable sponsored by the American Cancer Society and Centers for Disease Control  
Atlanta, GA, December 9, 1997
- ACR Representative to American Digestive Health Foundation, Committee on Colon Cancer Prevention,  
Washington, DC, January 13, 1998

RADIOLOGICAL SOCIETY OF NORTH AMERICA

- Member, 1975 to Present

SOCIETY OF GASTROINTESTINAL RADIOLOGISTS

- Member, 1979 to Present

AMERICAN COLLEGE OF GASTROENTEROLOGY

- Fellow, 1976 to Present

AMERICAN BOARD OF RADIOLOGY

- Examiner for Oral Boards  
Louisville, KY  
1981, 1982, 1989, 1995, 1997, 1998, 1999, 2000, 2001, 2003, 2004

ARMED FORCES INSTITUTE OF PATHOLOGY  
Lecturer, 2002-present

AMERICAN ROENTGEN RAY SOCIETY

- Member, 1982 to Present

CO-EDITOR-IN-CHIEF, "COMPUTERIZED RADIOLOGY"  
1983 - 1988

EDITORIAL BOARD, "RADIOGRAPHICS"

1988 - 1990

**TUFTS UNIVERSITY SCHOOL OF MEDICINE**

- Member, Executive Council, 1996 to Present
- Self Study Committee on Educational Programs, 1998 -
- Self Study Committee on Clinical Teaching Facilities/Graduate Medical Education/Continuing Medical Education, 1998 -2000
- "New Course" Subcommittee on Medical Education for the TUSM Strategic Planning Committee 1998-2000

**PATENT:**

Patent 4, 836, 186; Body Compression Device for Patients Under Fluoroscopic Examination ("The F Spoon"); June 6, 1986.

**LAHEY CLINIC  
ACTIVITIES:**

Chairman, Department of Diagnostic Radiology  
1979 - 1989

Chairman, Department of Education  
Lahey Clinic Foundation  
1990 - 2002

President, Lahey Clinic Staff Association  
1983

Member, Board of Governors, Lahey Clinic Foundation  
1984 - 1988

Member, Board of Trustees, Lahey Clinic Foundation  
1984 - 1992

Member, Finance & Executive Committee,  
Board of Trustees, 1990 - 1992

Member, Board of Overseers, Lahey Clinic Foundation  
1992 - 1998

Committee Assignments, Lahey Clinic Medical Center  
Research Committee, 1982 - 1992  
Fringe Benefit Committee, 1989 - 1995  
Absence Committee, Chairman, 1984 - 1990  
Capital Equipment Committee, 1984 - 1992  
Professional Affairs Committee, 1985 - 1993  
Radiation Safety Committee, 1979 - 1989

Council of Department Chairmen, 1991 - 2002  
Educational Executive Committee, Chairman, 1990 - 2002  
Medical Education Committee, ex officio, 1990 - Present  
Surgical Education Committee, ex officio, 1990 - Present  
Continuing Medical Education Committee, 1991 - Present  
Post Graduate Recognition Day Committee, 1990 - Present  
Nominating Committee, Board Committee, 1996 - 1998  
Telemedicine Taskforce, 1999-

**PERSONAL DATA:**      Date of Birth:      July 19, 1944  
                                 Place of Birth:      Waco, Texas  
                                 Marital Status:      Married

## **BIBLIOGRAPHY**

1.      Scholz FJ and Wise RE: T-tube Cholangiography: Technical Considerations for the Surgeon. Surg Clin North Am 53:435-443, April 1973.
2.      Wise RE and Scholz FJ: Radiology of the Liver and Biliary Tract. Gastroenterology 65:967-985, December 1973.
3.      Scholz FJ, Johnston DO and Wise RE: Intravenous Cholangiography: Optimum Dosage and Methodology. Radiology 114:513-518, March 1975.
4.      Scholz FJ, Carrera GF, and Larsen CR: The Choledochocoele: Correlation of Radiological, Clinical and Pathological Findings. Radiology 118:25-28, January 1976.
5.      Berger M and Scholz FJ: Esophageal Obstruction Associated with Small Bowel Volvulus. Radiology 119:39-50, April 1976.
6.      Kessler RM and Scholz FJ: Carcinoma of the Pancreas. Contemporary Surgery 74-78, June 1975.
7.      Scholz FJ: Pseudo-Obstruction in Operative Cholangiography. Editorial, Archives of Surgery 110, January 1975.
8.      Scholz FJ, Larsen CR and Wise RE: Intravenous Cholangiography Seminars in Roentgenology, October 1976.
9.      Larsen CR, Scholz FJ and Wise RE: Diseases of the Biliary Tree. Seminars in Roentgenology, October 1976.
10.     Hatfield PM and Scholz FJ: Congenital Disorders of the Biliary Tree. Seminars in Roentgenology, October 1976.

11. Scholz FJ, Hatfield PM, Larsen CR and Wise RE: Carcinoma of the Pancreas. *Current Problems in Diagnostic Radiology*, September/October 1977.
12. Scholz FJ and Spencer NP: Nonoperative Extraction of Retained Biliary Tract Calculi. *Lahey Clinic Foundation Bulletin* 28:8-13, January/March 1979.
13. Heiss FW, Shea JA, Cady B and Scholz FJ: Pancreatic Pseudocyst with Mediastinal Extension and Pleural Effusion. *Digestive Diseases and Sciences* 24:649-651, August 1979.
14. Srinivasan MK and Scholz FJ: Hemiazygos Vein as a cause of Posterior Indentation of the Esophagus: A Case Report. *Gastrointestinal Radiology* 5:13-15, 1980.
15. Scholz FJ and Agarwal D: Template for Cropping Radiographs to Fit 35mm Slide Format. *Medical Radiography and Photography* 56, 1980.
16. Fitzgibbons RJ Jr., Nugent FW, Ellis FH Jr., Braasch JW and Scholz FJ: Unusual Thoraco-Abdominal Duplication Associated with Pancreaticopleural Fistula. *Gastroenterology* 79:344-347, 1980.
17. Scholz FJ: Duodenum Chapter in Teplick GJ and Haskin ME (eds.): *Surgical Radiology*. Pennsylvania, W.B. Saunders Company, 1981, pp 502-537.
18. Agarwal D and Scholz FJ: Small Bowel Varices Demonstrated by Enteroclysis. *Radiology* 140:350, August 1981.
19. Scholz FJ, Pollak AA and Beckmann CF: Intravenous Digital Subtraction Angiography. *Lahey Clinic Bulletin* 31:66-80. April/June 1982.
20. Scholz FJ: Occult Gastrointestinal Bleeding Update, 1982. Double Contrast Examination of the Small Bowel by Enteroclysis. *Lahey Clinic Bulletin* 31:89-92, July/September 1982.
21. Shah SJ and Scholz FJ: Anorectal Herpes: Radiographic Findings. *Radiology* 147:81-82, April 1983.
22. Widrich WC, Beckmann CF, Robbins AH, Scholz FJ, et al: Iopamidol and Meglumine Diatrizoate: Comparison of Effects on Patient Discomfort During Aortofemoral Arteriography. *Radiology* 148:61-64, July 1983.
23. Heiss FW, Rossi RL, Scholz FJ, et al: Common Bile Duct Calculi. *Postgraduate Medicine* 75:88-117, February 15, 1984.



24. Styles RA, Gibb SP, Tarshis A, Silverman ML and Scholz FJ: Esophagogastric Polyps: Radiographic and Endoscopic Findings. *Radiology* 154:307-311, 1985.
25. Wenstrup RS, Sweeney KP and Scholz FJ: Digital Subtraction Angiography System Evaluation with Phantoms. *Radiology* 155:805-809, 1985.
26. Kremers PW, Scholz FJ, Schoetz DJ Jr., Veindenhimer MC and Collier JA: Radiology of the Ileoanal Reservoir. *AJR* 145:559-567, September 1985.
27. Badami JP, Baker RA, Scholz FJ, et al: Outpatient Metrizamide Myelography: Prospective Evaluation of Safety and Cost Effectiveness. *Radiology* 158:175-177, 1986.
28. Scholz FJ: Gastritis, Chapter in Textbook of Radiology, Taveras and Ferrucci, 4:1-8, Chapter 19, 1986.
29. Scholz FJ: Digital Subtraction Angiography. *Med Clin North Am* Vol 70, No 6, pp 1253-1265, November 1986.
30. Cossi AF, Sykes MW, Shahian DM and Scholz FJ: Intraluminal Mass of the Left Pulmonary Artery. *Computerized Radiol.* Vol 10, No 2/3, pp 111-113, 1986.
31. Cossi AF, Scholz FJ, Aretz HT, Larsen CR, Computed Tomography of Xanthogranulomatous Cholecystitis, *Gastrointestinal Radiology* 12:154-155, 1987.
32. Luedke MD, Scholz FJ and Larsen CR: Computed Tomographic Evaluation of Spigelian Hernia. *Comp Med Imag and Graphics*, Vol 12, No 2, pp 123-129, 1988.
33. Scholz FJ and Gutmann EJ: Case Records of the Massachusetts General Hospital (Case 42 - 1988). *N Engl J Med*, Vol 319, No 16, pp 1073-1080, October 1988.
34. Olson SL, Fam BW, Winter PF, Scholz FJ, Lee AK, Gordon SE: Breast Calcifications: Analysis of Imaging Properties. *Radiology* 169:329, 1988.
35. Fam BW, Olson SL, Winter PF, Scholz FJ: Algorithm for the Detection of Fine Clustered Calcifications on Film Mammograms, *Radiology* 1988; 169:333-337.
36. Scholz FJ and Vincent M: The Stomach, in Putnam C (ed): *The Text Book of Diagnostic Imaging*. Pennsylvania, W.B. Saunders Company, 1988.
37. Scholz FJ: Manual Compression Device for Fluoroscopy. *Radiology* 170:564-565, February 1989.
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42. Krause RD, Dowd JB, Larsen CR, Cuttino JT Jr, Scholz FJ: Acute Pyelonephritis After Transrectal Ultrasonographically Guided Biopsy of the Prostate: Diagnosis by Computed Tomography. Comp Med Imaging and Graphics, Vol 16, No 4, pp 297-299, 1992.
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46. Scholz FJ: Radiology of the Post-Operative Colon; Chapter in Gore, Levine, and Laufer; Textbook of Gastrointestinal Radiology; W.B. Saunders, 1994.
47. Hall DH, Scholz FJ: Collagen Vascular Disease of the Bowel; Chapter in Gore, Levine, and Laufer; Textbook of Gastrointestinal Radiology; W.B. Saunders, 1994.
48. Scholz FJ, Heiss FW, Roberts PL, Thomas C: Diaphragm-like Strictures of the Small Bowel Associated with Use of Nonsteroidal Antiinflammatory Drugs; AJR 1994; 162:49-50.
49. Farman J, Brunetti J, Baer JW, Freiman H, Comer GM, Scholz FJ, Koehler RE, Laffey K, Green P, Clemett AR: AIDS-Related Cholangiopancreatographic Changes; Abdominal Imaging 19:417-422 (1994).
50. Scholz FJ, Vincent ME, The Stomach, Chapter in Putman & Ravin, Textbook of Diagnostic Imaging, WB Saunders 1994.

51. Alfisher MM, Scholz FJ, Roberts PL, Counihan T: Radiology of Ileal Pouch-Anal Anastomosis: Normal Findings, Examination Pitfalls, and Complications; Radiographics 1997; 17:81-98.
52. Gazelle GS, McMahon PM, Scholz FJ: Screening for Colorectal Cancer, Radiology 2000, 215:327-35.
52. Scholz FJ: Tips for the Comfortable Double-Contrast Barium Enema: The Open Tube Technique with Active Drainage; Seminars in Roentgenology, Vol 35, No.4:342-356, October 2000.
53. Miller FH, Ma JJ, Scholz FJ: Imaging Features of Enterohemorrhagic Escherichia coli Colitis; AJR:177, Vol. 177, No. 3, p. 619-623, September 2001.

#### **LECTURES - PANELS**

1. "New Radiographic Techniques and Diagnoses in Gastrointestinal Bleeding". Symposium: Gastrointestinal Bleeding, Catholic Medical Center, Manchester, NH. May 17, 1978.
2. "Percutaneous Transhepatic Cholangiography and External Manipulation of Retained Stones". Symposium: Surgical Disease of the Liver, Biliary Tract, and Pancreas. Lahey Clinic Foundation, Boston, MA. June 15, 1978.
3. "Basket Retrieval of Common Duct Stones and New Radiologic Techniques in the Stomach Bowel". Symposium: Clinical Gastroenterology, Lahey Clinic Foundation, Boston, MA. October 6, 1978.
4. "New Radiologic Diagnostic and Therapeutic Techniques in the Biliary Tree." Samuel Goodman Memorial Symposium: "Updating Your Diagnostic Techniques". St. John's Medical Center, Tulsa, OK. April 18, 1979.
5. "New Techniques in the Diagnosis of Pancreatic and Biliary Disease". Symposium: Topics in Internal Medicine, Lahey Clinic Foundation, Boston, MA. April 28, 1979.
6. "Bile Duct Lesions: Direct and Indirect Cholangiography". Symposium: Abdominal Radiology, Harvard Medical School, Boston, MA. May 14, 1979.
7. "Acute Biliary Problems, New and Old Modalities". Symposium: Trauma and Emergency Room Radiology, Boston University School of Medicine, Boston, MA. May 25, 1979.
8. "Gastric Air Contrast Technique, Peptic Gastric Disease, Gastric Polyp Disease, The Postoperative Stomach". Symposium: Gastrointestinal Radiology, New Techniques, New Diagnoses, Lahey Clinic Foundation, Boston, MA. September 15, 1979.

9. "The Radiology of Jaundice". Grand Rounds of Radiology, Tufts University School of Medicine, Boston, MA. February 1, 1980.
10. "Air Contrast Gastrointestinal Examinations, Comparative Radiologic Patterns in Inflammatory Bowel Disease, Percutaneous Basket and Forceps Extraction of Retained Stones, and Percutaneous Biliary Drainage". Symposium: Controversies and Advances in Radiology and Medicine, Tufts University School of Medicine, Smugglers Notch, VT. February 24-29, 1980.
11. "Adrenal Radiology". Symposium: The Endocrine System for General Surgeons, Lahey Clinic Foundation, Boston, MA. May 29, 1980.
12. "Radiology of Small Bowel Disease". New England Roentgen Ray Society, Cambridge, MA. May 15, 1981.
13. "Other Enterocolitides". Fifteenth Annual Symposium on Diagnostic Radiology, Lahey Clinic Foundation, Boston, MA. September 18, 1981.
14. "The New Enterocolitides". Refresher Course, Society of Gastrointestinal Radiologists, Boca Raton, FL. October 2, 1981.
15. "Intravenous Digital Subtraction Angiography in the Pre and Postoperative Evaluation of Renovascular Hypertension". New England Section of the American Urological Association, Chateau Frontenac, Quebec City. October 18-20, 1982.
16. "Digital Subtraction Angiography". Medical Grand Rounds-Panel Discussion, Lahey Clinic Medical Center, Burlington, MA. March 19, 1982.
17. "Some Other Enterocolitides". Radiological Society of North America, Refresher Course, Chicago, IL. November, 1982.
18. "Digital Radiography, Now and Tomorrow". Mini Symposium, Lahey Clinic Medical Center, Burlington, MA. May 15, 1982.
19. "Enteroclysis". Radiology Symposium, Lahey Clinic Foundation, Boston, MA. September 9, 1982.
20. "Intestinal Pseudo-Obstruction". Radiology Symposium, Lahey Clinic Foundation, Boston, MA. September 9, 1982.
21. "The Esophagogastric Polyp". Radiology Symposium, Lahey Clinic Foundation, Boston, MA. September 11, 1982.

22. "Digital Subtraction Angiography". Grand Rounds, Melrose-Wakefield Hospital, Melrose, MA. November, 1982.
23. "Diagnostic Approaches to Acute Cholecystitis and Obstructive Jaundice". Symposium: Surgery of the Liver, Pancreas, Biliary Tract and Spleen, Lahey Clinic Foundation, Hyatt Regency Hotel, Cambridge, MA June 4, 1982.
24. "Stone Extraction". Symposium: Surgery of the Liver, Pancreas, Biliary Tract and Spleen, Lahey Clinic Foundation, Hyatt Regency Hotel, Cambridge, MA. June 4, 1982.
25. "Radiographic Evaluation of the Small Bowel". Symposium: Annual Postgraduate Course in Gastroenterology, Lahey Clinic Medical Center, Boston, MA. October 1, 1982.
26. Symposium on Retained Biliary Stones. Lahey Clinic Alumni Meeting. 1981.
27. Film Panelist. Society of Gastrointestinal Radiologists, Banff, Canada. October 10-15, 1982.
28. "Principles of GI Diagnosis". New England Society of GI Assistants, Lahey Clinic Medical Center, Burlington, MA. March 3, 1983.
29. "Intravenous Digital Subtraction Angiography". Symposium and Workshop on Digital Subtraction Angiography. Hyatt at Los Angeles Airport, Los Angeles, CA. June 1-3, 1983.
30. "Vascular-Interventional Radiology and the New Imaging Modalities--The ATL System". Transluminal Angioplasty Course, Harvard Medical School, Marriott at Long Wharf, Boston, MA. June 14, 1983.
31. "Intravenous Digital Subtraction Renal Angiography". Radiology Symposium, Lahey Clinic Foundation, Boston, MA. September 22, 1983.
32. Film Panelist, Society of Gastrointestinal Radiologists. Hamilton, Bermuda. October 18-21, 1983.
33. Resident Lecture Series. University of Vermont Medical School. Burlington, VT. November 2, 1983.
34. "Low mA Continuous Imaging Techniques/Early Work with Digital Photo-Fluoroscopy". Digital Radiography 1984: National Symposium, Diplomat Resort & Country Clubs, Hollywood, FL. January 30-February 3, 1984.
35. "Renal By-pass Graft Evaluation". Digital Radiography 1984: National Symposium, Diplomat Resort & Country Clubs, Hollywood, FL. January 30-February 3, 1984.

36. "Digital Subtraction Angiography". New England Roentgen Ray Society, Cambridge, MA. February 10, 1984.
37. Resident Lecture Series. St. Peter's Hospital, Albany, NY. March 14, 1984.
38. "Parameters of Digital Imaging". Eighth Annual Computerized Radiology Society Seminar. Marriott Hotel, Washington, DC. April 7-8, 1984.
39. "Current Clinical Applications of Digital Imaging". Eighth Annual Computerized Radiology Society Seminar. Marriott Hotel, Washington, DC. April 7-8, 1984.
40. "Techniques and Technicalities of Digital Vascular Imaging". Annual Washington Imaging Conference. April 29-May 4, 1984.
41. "Realities and Practicalities of Enteroclysis". Radiology Grand Rounds, Massachusetts General Hospital, Boston, MA. May 2, 1984.
42. "Radiology of the Ileoanal Reservoir". Society of Gastrointestinal Radiologists. Napa Valley, CA. October 2, 1984.
43. "Digital Subtraction Angiography". Buffalo Radiological Society, Buffalo, NY. January 14, 1985.
44. "Cystic Lesions of the Biliary Tree and Liver". Buffalo Radiological Society, Buffalo, NY. January 14, 1985.
45. "Digital Subtraction Angiography". Grand Rounds, Lowell General Hospital, Lowell, MA. April 1, 1985.
46. "Cystic Lesions of the Biliary Tree". Diagnostic Radiology Symposium, Lahey Clinic Medical Center, Boston, MA. September 19-21, 1985.
47. "Digital Angiography of the Chest". Diagnostic Radiology Symposium, Lahey Clinic Medical Center, Boston, MA. September 19-21, 1985.
48. "How to do an Air Contrast Enema". Radiology and Colon Cancer: A National Symposium. Burlington, MA. December 2, 1985.
49. "Cystic Lesions of the Biliary Tree". Grand Rounds, University of Massachusetts Medical Center, Worcester, MA. December 13, 1985.
50. Digital Angiography. New England Conference of Radiologic Technologists: 1986 Annual Meeting. Sturbridge, MA. September 28, 1985.



51. "The Practice Survey". American College of Radiology - Practice Accreditation Panel, Miami, FL. April 24-28, 1987.
52. "Image Enhancement - Responding to the Need for Early Diagnosis", Lecture, Lahey Clinic Medical Technology Development Day, Burlington, MA, May 20, 1987.
53. "Diverticular Disease and the Radiologist" and "Radiologic Differentiation Between Crohn's Disease and Ulcerative Colitis". Lahey Clinic Medical Center, Burlington, MA June 13, 1987.
54. "Cholangiography - Disease of the Biliary Tree". New England Conference of Radiologic Technologists. Burlington Marriott, Burlington, MA. September 17, 1987.
55. Panelist, "Unknown Film Panel". New England Roentgen Ray Society, September 18, 1987.
56. "Cystic Lesions of the Biliary Tree". Radiology Grand Rounds. Columbia-Presbyterian Hospital. February 3, 1988.
57. Discussant, Clinico-Pathologic Conference, Massachusetts General Hospital, (NEJM Case Records of the Massachusetts General Hospital), February 11, 1988.
58. "Double Contrast Techniques in Gastrointestinal Diagnosis." New England Conference of Radiologic Technologists. March 26, 1988.
59. "Radiology of the Intrahepatic Ducts:, Refresher Course, Society of Gastrointestinal Radiologists, Palm Desert, CA. February 19, 1989.
60. "Tumors of the Biliary Tree", Refresher Course, Society of Gastrointestinal Radiologists.
61. "Tumors of the Biliary Tree", Lecture, New England Roentgen Ray Society, Boston, MA, April 20, 1990.
62. Panelist, "Unknown Film Panel", New England Roentgen Ray Society, Boston, MA, April 20, 1990.
63. "Vascular Insults to the Small Bowel", "Tumors of the Biliary Tree", "An Atlas of Crohn's Disease", Lecturer, Wilford Hall Hospital, USAF Base, Brook Army Medical Center, University of Texas, San Antonio, TX: August 2, 3, 4, 1990.
64. "Vascular Insults to the Bowel", Lecture, New England Roentgen Ray Society, September 1990.
65. "Vascular Insults to the Bowel", Refresher Course, Society of Gastrointestinal Radiologists, Orlando, Florida; February 19, 1992.



66. New England Conference of Radiologic Technologists, Annual Meeting, Special GI Studies, September 24, 1992, Manchester, NH.
67. Radiation Injury to the Bowel, New England Roentgen Ray Society, November 20, 1992, Cambridge, MA.
68. The Radiology of Chronic Bowel Ischemia. Radiology Grand Rounds, Mt. Auburn Hospital, November 10, 1992.
69. How to do a Perfect Comfortable Air Contrast Enema. Refresher Course, Society of Gastrointestinal Radiologists, Scottsdale, Arizona, January 22, 1993.
70. How to do a Perfect Comfortable Air Contrast Enema. Radiology Grand Rounds, New England Deaconess Hospital, Boston, MA, February 9, 1993.
71. "The Comfortable Air Contrast Enema", Grand Rounds in Radiology, Mt. Auburn Hospital, Cambridge, MA, March 7, 1995.
72. "Small Bowel Diseases: Sprue, Scleroderma, Radiation Enteritis", Boston University Hospital, March 23, 1995.
73. "The Elementary Alimentary Tract", Harvard Refresher Course, Cambridge, MA, April 11, 1995.
74. "CT of Small Bowel Obstruction", Dartmouth Hitchcock Medical Center Refresher Course, Woodstock, VT, May 13, 1995.
75. Radiology of Small Bowel Ischemia, Radiology Grand Rounds, Hartford Hospital, Hartford CT, Oct 18, 1995
76. Practical Radiology of Dysphagia, Radiology Grand Rounds, Hartford Hospital, Hartford CT, Oct 18, 1995
77. Radiation Enterocolitis, 24th Annual Radiology Seminar, Maricopa Medical Center, Phoenix AZ, Nov 2, 1995
78. Radiology of Small Bowel Ischemia, 24th Annual Radiology Seminar, Maricopa Medical Center, Phoenix AZ, Nov 2, 1995
79. Malabsorption Disease Made Easy, 24th Annual Radiology Seminar, Maricopa Medical Center, Phoenix AZ, Nov 3, 1995
80. Practical Radiology of Dysphagia, 24th Annual Radiology Seminar, Maricopa Medical Center, Phoenix AZ, Nov 3, 1995

81. The Comfortable Air Contrast Enema - The Open Tube Technique, 24th Annual Radiology Seminar, Maricopa Medical Center, Phoenix AZ, Nov 3, 1995
82. How to do a Perfect Comfortable Air Contrast Enema. Refresher Course, Society of Gastrointestinal Radiologists, Hamilton, Bermuda, March 27, 1996.
83. "The Elementary Alimentary Tract", Harvard Refresher Course, Cambridge, MA, April 25, 1996.
84. The Radiology of Bowel Ischemia, Grand Rounds Boston Medical Center, Boston, MA, Jan. 9, 1997.
85. How to do a Perfect Comfortable Air Contrast Enema. Refresher Course, Society of Gastrointestinal Radiologists, Cancun, Mexico, March 13, 1997.
86. "The Elementary Alimentary Tract", Harvard Refresher Course, Cambridge, MA, April 8, 1997.
87. Radiology of Dysphagia, Montefiore Medical Center, New York NY, September 12, 1997.
88. Colon Cancer Screening, New England Conference of Radiologic Technologists, Sturbridge, MA, September 26, 1997.
89. Radiology of Dysphagia, Boston Medical Center, Boston, MA October 9, 1997
90. "The Perfect, Comfortable Air Contrast Enema", Society of GI Radiologists, Palm Desert, CA, February 24, 1998
92. Defecography, Medical Grand Rounds, Massachusetts General Hospital, Boston, MA, March 11, 1998
93. "The Best of Barium", Harvard Medical School Symposium, Cambridge, MA, April 8, 1998
94. "Colon Cancer, Mets & Mimics", New York Roentgen Ray Society, New York City, NY, January 11, 1999
95. "Why, Who and How to Screen for Colon Cancer", New York Roentgen Ray Society, New York City, NY, January 11, 1999
96. "Dysphagia and Malabsorption", Grand Rounds, Mt. Sinai Hospital, New York City, NY, January 12, 1999

97. "Radiology of the Alimentary Tract", American College of Gastroenterology Postgraduate Course, Phoenix, AZ, October 16, 1999
98. "Colon Cancer Screening: No Longer an Option", The Annual Richard Schatzki, M.D. Lecture, Mt. Auburn Hospital, Cambridge, MA, October 28, 1999.
99. "The Best of Barium", Brigham & Women's/Massachusetts General Hospital 8<sup>th</sup> Annual Harvard Radiology Review, Boston Marriott Copley Place, Boston, MA, April 2000.
100. "The Role of the Double Contrast Barium Enema in Screening the Average Risk Adult", Colorectal Cancer Screening Workshop, National Cancer Institutes of Health, Bethesda, MD, March 1-2, 2001.
101. "The Unique Duodenum", Refresher Course, Society of Gastrointestinal Radiologists, Scottsdale, AZ, March 28, 2001.
102. "Alimentary Tract Radiology", Brigham & Women's/Massachusetts General Hospital 9<sup>th</sup> Annual Harvard Radiology Review, The Tremont Hotel, Boston, MA, May 2001.
103. Dysphagia, Malabsorption, and Case Presentations to Residents. Visiting Professor, University of Vermont, Burlington, VT, November 16, 2001.
104. "Gastroduodenitis", Annual Thomas C. Beneventano Lecture, Montefiore Medical Center, New York City, March 14, 2002.
105. "Enema Tips, How to do a Comfortable Examination", Society of GI Radiologists, Orlando, FL, April 18, 2002.
106. "Imaging of the Biliary Tree", New York Roentgen Ray Society Annual Meeting, New York City, New York, April 24, 2002.
107. "Imaging of Dysphagia", New York Roentgen Ray Society Annual Meeting, New York City, New York, April 24, 2002.
108. "The Best of Barium", Brigham & Women's/Massachusetts General Hospital 10<sup>th</sup> Annual Harvard Radiology Review, Swissotel Boston, Boston, MA, April 2002.
109. "Issues in Colon Cancer", American Roentgen Ray Society Annual M, Atlanta, GA, May 1, 2002.
110. "Radiology of the Biliary Tree", Radiology Grand Rounds and Visiting Professor, Winthrop University Hospital, Mineola, NY, September 19, 2002.

111. "Radiology of Malabsorption, Mesenteric Ischemia, Small Bowel Obstruction", Nycomed Guest Lecturer - Abdominal Imaging Review in Radiologic Pathologic Correlation, Armed Forces Institute of Pathology, Washington D.C., October 28 – November 1, 2002.
112. "Familial Polyposis", New York Roentgen Ray Society Annual Meeting, Rockefeller University, New York City, New York, April 15, 2004.
113. "Alimentary Tract Radiology", American Roentgen Ray Society, 104<sup>th</sup> Annual Scientific Meeting, Miami Beach, Florida, May 2 – 7, 2004.
114. "Colorectal Cancer Screening", Course Lecture, American Roentgen Ray Society, 104<sup>th</sup> Annual Scientific Meeting, Miami Beach, Florida, May 6, 2004.
115. "Small Bowel Obstruction, Mesenteric Ischemia, Radiology of Malabsorption, Polyposis Syndromes", Armed Forces Institute of Pathology, Radiology Course; 5 sessions of 4 lectures, 2004-2005.
116. "Polyposis Syndromes", Refresher Course; "Colorectal Cancer Screening", Plenary Session, Abdominal Radiology Course, Society of Gastrointestinal Radiologists, San Antonio Texas, February 27-March 4, 2005.
117. "Radiology of the Alimentary Tract;", Harvard Medical School Refresher Course, , Boston, MA, April 4-8, 2005.
118. "Alimentary Tract Radiology: Pharynx thru Colon", Refresher Course, Cambridge MA May 7, 2005.
119. "Small Bowel Obstruction, Mesenteric Ischemia, Radiology of Malabsorption, Polyposis Syndromes, Dysphagia", Sociedad Espanola de Radiologia Medica (Spanish Society of Medical Radiology), Madrid, Spain, June 12-14, 2005.
120. "Small Bowel Obstruction, Mesenteric Ischemia, Radiology of Malabsorption, Polyposis Syndromes, Dysphagia", Sociedade Portuguesa de Radiologia e Medicina Nuclear (Portugese Society of Radiology and Nuclear Medicine), Oporto, Portugal, June 15-17, 2005.
121. "Small Bowel Obstruction, Mesenteric Ischemia, Radiology of Malabsorption, Polyposis Syndromes, Gastric Inflammatory Diseases, Dysphagia", Osterreichische Roengengesellschaft (Austrian Radiology Society), Vienna, Austria, June 18-20, 2005.
122. "Small Bowel Obstruction, Mesenteric Ischemia, Radiology of Malabsorption, Polyposis Syndromes", Armed Forces Institute of Pathology, Radiology Course, 5 sessions of 4 lectures, 2005-2006.

115. "Self Assessment Module (SAM), Small Bowel Obstruction; Mesenteric Ischemia; Imaging of Crohn's Disease", Course Lecture, Annual Abdominal Radiology Course, Society of Gastrointestinal Radiologists and Society of Uroradiology, Kauai, HI, February 26 - March 3, 2006.
116. "Pelvic Floor Imaging", Course Lecture, Annual Abdominal Radiology Course, Society of Gastrointestinal Radiologists and Society of Uroradiology, Kauai, HI, February 26 - March 3, 2006.
117. "Diseases of Malabsorption", Course Lecture, Annual Abdominal Radiology Course, Society of Gastrointestinal Radiologists and Society of Uroradiology, Kauai, HI, February 26 - March 3, 2006.
118. "CT Detection of Malabsorption"; "CT of Small Bowel Obstruction"; Refresher Courses; "Radiology of the Pelvic Floor: Defecography, Plenary Session", Abdominal Radiology Course, Society of Gastrointestinal Radiologists, Kauai, HI, February 26 - March 3, 2006.
118. "Radiology of the Stomach and Duodenum", International Diagnostic Course Davos, (IDKD), Davos, Switzerland, April 2-7, 2006.
119. "Radiology of the Alimentary Tract", Harvard Medical School Refresher Course, Boston, MA, April 9-13, 2006.
120. "Alimentary Tract Radiology: Pharynx thru Colon"; Refresher Course, Cambridge MA., May 6, 2006.
121. "Small Bowel Obstruction: What the Resident Needs to Know at Midnight"; "Small Bowel Tumors"; "Current Utility of Barium Examinations"; European Society of Gastrointestinal and Abdominal Radiology (ESGAR), Crete, Greece, June 18-23, 2006.

#### **EXHIBITS**

1. Kremers PW, Scholz FJ Radiology of the Ileoanal Reservoir Procedures: American Roentgen Ray Society, 1985 Annual Meeting. Boston, MA. April 21-26, 1985.
2. Olsen SL, Fam BW, Winter PF, Scholz FJ. Algorithm for the Automatic Detection of Fine Clustered Calcification on Film Mammograms: Radiological Society of North America, 1994 Annual Meeting, Chicago, IL. 11/27/94 - 12/2/94.
3. Alfisher MM, Scholz FJ, Roberts PL, Counihan T: Radiology of Ileal Pouch--Anal Anastomosis: Normal Findings, Examination Pitfalls, and Pouch--Related Complications. Radiological Society of North America, 1994 Annual Meeting, Chicago, IL. 11/27/94 - 12/2/94. Awarded Certificate of Merit.

4. Rolfs AT, Scholz FJ: Doom and Near Doom: Abdominal Vascular Emergencies Detected at CT. Radiological Society of North America, 1994 Annual Meeting, Chicago, IL. 11/27/94 - 12/2/94.
5. Jain R, Scholz FJ : CT of Small-Bowel Obstruction,; Radiologic Society of North America, Annual Meeting, Chicago, Nov 26-Dec 1, 1995. Awarded Certificate of Merit.
6. Stram E, Scholz FJ, Larsen CR. Radiology of Peritoneal Inclusion Cysts. Radiologic Society of North America, Annual Meeting, Chicago, Nov 30 - Dec 5, 1997.
7. Uppin A, Wald C, Hayek R, Scholz F. The Inlet Patch. Radiologic Society of North America, Annual Meeting, Chicago, Nov. 23 - 30, 2001.